PIXMA MP800

SERVICE MANUAL

Canon

The following do not apply if they do not conform to the laws and regulations of the region where the manual or product is used:

Trademarks

Product and brand names appearing in this manual are registered trademarks or trademarks of the respective holders.

Copyright

All rights reserved. No parts of this manual may be reproduced in any form or by any means or translated into another language without the written permission of Canon Inc., except in the case of internal business use.

→

I. MANUAL OUTLINE

This manual consists of the following three parts to provide information necessary to service the PIXMA MP800:

Part 1: Maintenance
Information on maintenance and troubleshooting of the PIXMA MP800

Part 2: Technical Reference
New technology and technical information such as FAQ's (Frequently Asked Questions) of the PIXMA MP800

Part 3: Appendix
Block diagrams and pin layouts of the PIXMA MP800

Reference:
This manual does not provide sufficient information for disassembly and reassembly procedures. Refer to the graphics in the separate Parts Catalog.

II. TABLE OF CONTENTS

Part 1

MAINTENANCE

←→

1. MAINTENANCE

1-1. Adjustment, Periodic Maintenance, Periodic Replacement Parts, and Replacement Consumables by Service Engineer

(1) Adjustment

	Adjustment	Timing	Purpose	Tool	Approx. time
	EEPROM initialization	At logic board ass'y replacement	To initialize settings.	None. Perform in the service mode.	1 min.
	LCD language settings	At logic board replacement	To set the language to be displayed on the LCD.	None. Perform in the user mode.	1 min.
	Destination settings (EEPROM settings)	At logic board ass'y replacement	To set the destination.	None. Perform in the service mode.	1 min.
	Waste ink counter resetting (EEPROM settings)	- At logic board replacement - At waste ink absorber replacement	To reset the waste ink counter.	None. Perform in the service mode.	1 min.
	Waste ink amount setting (EEPROM settings)	- At logic board replacement - At waste ink absorber replacement	To set the waste ink amount to the waste ink counter.	None. Perform in the service mode.	1 min.
	Paper feed motor position adjustment	At paper feed motor replacement	To adjust the belt tension. (Position the paper feed motor so that the belt is stretched tight.)	None.	2 min.
	CD / DVD detection sensor light volume correction[*1]	- At logic board replacement - At carriage unit replacement	To correct the light volume for the CD / DVD detection sensor.	None. Perform in the service mode.	2 min.
	Grease application	- At carriage unit replacement - At PR shaft ass'y replacement - At CL base or CL gear replacement	- To maintain sliding properties of the carriage shaft and the lift cam shaft. - To protect the machine's sliding portions (gears).	FLOIL KG-107A	1 min.
New	Ink system function check	- At logic board replacement - At platen unit replacement - At carriage unit replacement	To maintain detection functionality for presence of the ink tanks and each ink tank position.	None. Perform in the service mode.	1 min.
	FAU sponge sheet adjustment	- At FAU sponge sheet replacement - At FAU sponge frame replacement - At scanning unit replacement	To attach the FAU sponge sheet in the proper position.	None.	2 min.

Note: DO NOT loosen the red screws at both ends of the carriage shaft, securing the print head position, as they are not re-adjustable.

The red screws securing the paper feed motor may be loosened only at replacement of the paper feed motor unit.

*1: Only for CD / DVD printing supported regions.

(2) Periodic maintenance
No periodic maintenance is necessary.

(3) Periodic replacement parts
There are no parts in this machine that require periodic replacement by a service engineer.

(4) Replacement consumables

There are no consumables that require replacement by a service engineer.

1-2. Customer Maintenance

Adjustment	Timing	Purpose	Tool	Approx. time
Print head alignment	At print head replacement.	To ensure accurate dot placement.	- Machine buttons - Computer (automatic settings via the MP driver)	3 min.
Print head cleaning	When print quality is not satisfying.	To improve nozzle conditions.	- Machine buttons - Computer (settings via the MP driver)	1 min.
Print head deep cleaning	When print quality is not satisfying, and not improved by print head cleaning.	To improve nozzle conditions.	- Machine buttons - Computer (settings via the MP driver)	2 min.
Ink tank replacement	When an ink tank becomes empty. ("No ink error" displayed on the monitor, or short flashing of an ink tank LED)	-----	-----	2 min.
Paper feed roller cleaning	When paper does not feed properly.	To clean the paper feed rollers.	Machine buttons	2 min.
CD / DVD print position adjustment*1	At CD / DVD printing, when necessary.	To correct CD / DVD print position.	Computer (application software)	5 min.
Bottom plate cleaning	When the back side of the paper is smeared.	To clean the platen ribs.	- Plain paper - Computer (settings via the MP driver)	1 min.
Scanning area cleaning	When the platen glass, FAU lamp, or FAU protection sheet is dirty.	Clean the platen glass, FAU lamp, or FAU protection sheet.	Clean and soft cloth.	1 min.
ASF sub- roller cleaning	When the paper fed from the ASF is smeared due to ink mist attached to the ASF sub-rollers.	To clean the ASF sub-rollers.	- Plain paper - Machine buttons (paper feed roller cleaning) [See Part 2, 5. FAQ, How to make and set the ASF sub-roller cleaning sheet, for details]	1 min.

*1: Only for CD / DVD printing supported regions.

1-3. Product Life

(1) Machine

Specified print volume (I) or the years of use (II), whichever comes first.

(I) Print volume: 14,000 pages

Black	1,500 character pattern	6,200 pages
Color	A4, 7.5% duty per color pattern	4,200 pages
	A4, photo, borderless printing	300 pages
	4 x 6, photo, borderless printing	2,500 pages
	Postcard, photo, borderless printing	800 pages

(II) Years of use: 5 years of use

(2) Print head

Black	1,500 character pattern	6,200 pages
Color	A4, 7.5% duty per color pattern	4,200 pages
	A4, photo, borderless printing	300 pages
	4 x 6, photo, borderless printing	2,500 pages
	Postcard, photo, borderless printing	800 pages

(3) Ink tank (target value)

Pattern	Ink tank used	Print yield
Black text	PGI-5BK	Approx. 800 pages
Color chart	PGI-5BK	Approx. 1,250 pages
	CLI-8Y	Approx. 480 pages
	CLI-8M	Approx. 500 pages
	CLI-8C	Approx. 710 pages
Photo chart	CLI-8BK	Approx. 1,100 pages
	CLI-8Y	Approx. 280 pages
	CLI-8M	Approx. 250 pages
	CLI-8C	Approx. 390 pages

Black text: When printing the Canon standard pattern (1,500 characters per page) on A4 size plain paper, with the default settings in the Windows XP driver, using Word 2003.

Color chart: When printing the ISO/JIS-SCID N5 pattern on A4 size plain paper in bordered printing, with the default settings in the Windows XP driver, using Photoshop 7.0.

Photo chart: When printing the Canon standard pattern on 4" x 6" Photo Paper Plus Glossy in borderless printing, with the default settings in the Windows XP driver, using Windows XP Photo Printing Wizard.

The print yield in the table above is an average value measured in continuous printing, using the ink tank immediately after it is unsealed, until the ink is out. Ink yield may vary depending on texts and photos printed, application software, print mode, and type of paper used.

When the machine is turned on and while printing, each ink may be used for protecting the print head and maintaining print quality.

1-4. Special Tools

Name	Tool No.	Application	Remarks
FLOIL KG-107A	QY9-0057-000	To be applied to the sliding portions of the carriage shaft and lift cam shaft.	In common with the S500 and S520.

1-5. Serial Number Location

On the carriage flexible cable holder (visible on the right of the carriage after the machine is turned on, the scanning unit is opened, and the carriage moves to the center).

← **<Part 1: 1. MAINTENANCE>** →

2. LIST OF ERROR DISPLAY / INDICATION

Errors and warnings are displayed on the LCD.

2-1. Operator Call Errors (by Alarm LED Lit in Orange)

Error	Error code	Message on the LCD	Solution
No paper (ASF).	[1000]	Auto sheet feeder. There is no paper. Load paper and press [OK].	Set the paper in the ASF, and press the OK button.
No CD / DVD tray*1.	[1001]	There is no CD-R tray. Attach the tray and press [OK].	Set the CD / DVD tray, and press the OK button.
No paper in the front paper feed cassette.	[1003]	Cassette. There is no paper. Load paper and press [OK].	Set the paper in the cassette, and press the OK button.
No CD or DVD*1.	[1002]	Printable disc is not set. Correctly place a disc in the CD-R tray and press [OK].	Set a CD or DVD in the CD / DVD tray (which is ejected at error occurrence), and inset the CD / DVD tray in the proper position. Then, press the OK button.
Paper jam.	[1300]	The paper is jammed. Clear the paper and press [OK].	Remove the jammed paper, and press the OK button.
Paper jam in the rear guide.	[1303]		
Paper jam in the under guide.	[1304]		
No ink.	[1600]	Ink has run out. Replace the ink tank and close the cover. (U041)	Replace the empty ink tank(s), and close the cover. Pressing the OK button will clear the error without ink tank replacement, however, ink may run out during printing.
Ink tank not installed.	[1660]	The following ink tank cannot be recognized. (Applicable ink tank icon) (U043)	Install the applicable ink tank(s) properly, and confirm that the LED's of all the ink tanks light red.
The print head is not installed, or it is not properly installed.	[1401]	Print head is not installed. Install the print head. (U051)	Install the print head properly.
Print head temperature sensor error	[1403]	Error code	Turn the machine off, and turn it on again. If the error is not cleared, the print head may be defective. Replace the print head.
Faulty EEPROM data of the print head	[1405]		
Inner cover open before start of printing on paper (print continuable)*2.	[1841]	Inner cover is open. Close the inner cover and press [OK].	Close the inner cover, and press the OK button.
Inner cover open during printing on paper (print NOT continuable)*2.	[1846]		Close the inner cover, and press the OK button. The paper being printed at error occurrence will be ejected without printing the remaining data for the ejected paper, then printing will resume from the next page.
Inner cover open before start of printing on paper (print continuable)*1.	[1851]		Close the inner cover, and press the OK button.
Inner cover open during printing on paper (print NOT continuable)*1.	[1856]		Close the inner cover, and press the Stop/Reset button to clear the error. The paper being printed at error occurrence will be ejected without printing the remaining data for the ejected paper, then printing will resume from the next page.
Inner cover closed before start of CD / DVD printing (print	[1850]	Open the inner cover, place the CD-R tray and press [OK].	Open the inner cover which functions as the CD / DVD tray feeder, set the CD / DVD tray in the feeder, and press the OK

continuable)*1.			button.
Inner cover closed during CD / DVD printing (print NOT continuable)*1.	[1855]		Open the inner cover, and press the OK button to clear the error. The CD or DVD being printed at error occurrence will be ejected without printing the remaining data for the ejected CD or DVD, then the next print job will be done.
Multiple ink tanks of the same color installed.	[1681]	More than one ink tank of the following color is installed. (U075)	Replace the wrong ink tank(s) with the correct one(s).
Ink tank in a wrong position.	[1680]	Some ink tanks are not installed in place. (U072)	Install the ink tank(s) in the correct position.
Warning: The waste ink absorber becomes almost full.	[1700]	The waste ink absorber is almost full. Press [OK] to continue but early replacement recommended. <See manual>	Press the OK button. The service call error, indicating the waste ink absorber is full, is likely to occur soon.
The connected digital camera or digital video camera does not support Camera Direct Printing.	[2001]	Incompatible device detected. Remove the device.	Remove the cable between the camera and the machine.
Automatic duplex printing cannot be performed.	[1310]	This paper is not compatible with duplex printing. Remove the paper and press [OK].	Press the OK button to eject the paper being used at error occurrence. Printing will resume from on the front side of the next page. Data which was to be printed on the back side of paper at error occurrence is skipped (not printed).
Failed in automatic print head alignment.	[2500]	Auto head align has failed. Press [OK] and repeat operation. <See manual>	Press the OK button. - If paper is being fed at error occurrence, the error is indicated after the paper is ejected. - If the error occurs, the print head alignment values are not changed. - After exit from the error by the Stop/Reset button, the automatic print head alignment will not be re-done.
The remaining ink amount unknown.	[1683]	(Applicable ink tank icon) The remaining level of the following ink cannot be correctly detected.	An ink tank which has once been empty is installed. Replace the applicable ink tank with a new one. Printing with a once-empty or refilled ink tank can damage the print head. If printing is continued without replacing the refilled ink tank, press the Stop/Reset button for 5 sec. or longer to record the use of a refilled ink tank. Note: After the above operation, the function to detect the remaining ink amount is disabled.
Ink tank not recognized.	[1684]	(Applicable ink tank icon) The following ink tank cannot be recognized. (U140)	A non-supported ink tank is installed (the ink tank LED is turned off). Install the supported ink tanks.
Ink tank not recognized.	[1410 to 1419]	(Applicable ink tank icon) The following ink tank cannot be recognized. (U150)	An error occurred in an ink tank (the ink tank LED is turned off). Replace the ink tank(s).
Scanning unit (printer cover) open.	[1200]	Cover is open. Close the cover.	Close the scanning unit (printer cover).

*1: Only for models supporting CD / DVD printing

*2: Only for models not supporting CD / DVD printing

2-2. Service Call Errors (by Cyclic Blinking in Orange (Alarm LED) and Green (COPY button), or Alarm LED Lit in Orange)

Service call errors are indicated by the number of cycles the Alarm LED and COPY button blink, and the corresponding error code is displayed on the LCD.

Cycles of blinking in orange (Alarm LED) and green (COPY button)	Error	Error code	Conditions	Solution (Replacement of listed parts, which are likely to be faulty)
2 times	Carriage error	[5100]	An error occurred in the carriage encoder signal.	- Carriage unit - Timing slit film - Logic board ass'y - Carriage motor
3 times	Line feed error	[6000]	An error occurred in the LF encoder signal.	- Timing sensor unit - Timing slit disk film - Feed roller ass'y - Platen unit - Logic board ass'y - Paper feed motor
4 times	Purge cam sensor error	[5C00]	An error occurred in the purge unit.	- Purge unit - Logic board ass'y
5 times	ASF (cam) sensor error	[5700]	This error takes place when feeding paper from the ASF after an error occurred in the ASF cam sensor.	- Sheet feed unit
6 times	Internal temperature error	[5400]	The internal temperature is not proper.	- Logic board ass'y
7 times	Waste ink absorber full	[5B00]	The waste ink absorber is full.	- Ink absorber kit
8 times	Print head temperature rise error	[5200]	The print head temperature exceeded the specified value.	- Print head - Logic board ass'y
9 times	EEPROM error	[6800]	A problem occurred in writing to the EEPROM.	- Logic board ass'y
11 times	Carriage lift mechanism error	[5110]	The carriage did not move up or down properly.	- PR lift shaft ass'y - Sheet feed unit - Logic board ass'y - Carriage lift sensor unit
12 times	AP position error	[6A00]	An error occurred in the AP motor during purging operation.	- Sheet feed unit - Logic board ass'y - Purge unit
13 times	Paper feed position error	[6B00]	An error occurred in the paper feed motor.	- Sheet feed unit - Logic board ass'y
14 times	Paper feed cam sensor error	[6B10]	An error occurred in the paper feed cam sensor during paper feeding from the front paper feed cassette. This error is also indicated when the waste ink counter is 60% or more, and a paper jam occurs in the under guide.	- Sheet feed unit - Logic board ass'y
15 times	USB Host VBUS overcurrent	[9000]	The USB Host VBUS is overloaded.	- Logic board ass'y
16 times	Valve sensor error	[6C00]	An error occurred in the valve sensor during cleaning.	- Logic board ass'y - Purge unit
17 times	Motor driver error	[6D00]	The AD conversion value indicating the motor driver temperature is not proper.	- Logic board ass'y
19 times	Ink tank position sensor error	[6502]	None of the ink tank position is detected.	- Platen unit - Logic board ass'y
20 times	Other hardware error	[6500]	The PCI bus error is detected by the ASIC.	- Logic board ass'y

Alarm LED lit	Scanner lock error	[5020]	The scanner is not in the home position at power-on. Since the error takes place assuming that the scanner lock switch is not unlocked before power-on, the Alarm LED is lit in orange and the message is displayed on the LCD (as with an operator call error), though the internal process is categorized as a service call error. On the LCD, "Release the scanner lock switch and turn the power off and back on." is displayed.	- Turn the machine off, unlock the scanner lock switch, then turn the machine on again.
22 times	Scanner error	[5010]	The scanner unit cannot detect the home position, or the scanner unit warming-up is not done properly at power-on. On the LCD, "Scanner is not operating correctly." is displayed.	- Scanner unit
Continuous alternate blinking	ROM error	[6100]	The check sum value is incorrect in the ROM check at hard-power-on.	- Logic board ass'y
Alarm LED lit	RAM error	[6300]	The RAM error occurred in the RAM check at hard-power-on.	- Logic board ass'y

2-3. Other Error Messages

Message on the LCD	Cause	Solution
Printing is unavailable. Data received via wireless communication is not photo data.	The received image data was invalid in infrared communication from a mobile phone.	The error message is displayed for a while, then the LCD automatically returns to the initial screen you see when the COPY, SCAN, PHOTO/FILM, or MEMORY CARD button is pressed.
The selected paper cannot be fed from cassette. Change the paper source.	The paper type being used is not supported for paper feeding from the cassette.	Change the paper source to the ASF.
Cannot specify the followings together. Change one of the settings.	Settings made conflict each other.	The error message is displayed for a while, then the LCD automatically returns to the display before the error occurrence.
Device memory is full. Cannot continue process. Reduce the number of photos to print.	The memory is not sufficient to do the print job.	Reduce the amount of data to be printed, or print from a computer.
Failed to scan. Either document cannot be scanned or is not placed on the platen glass.	The machine failed in scanning the document for Fit-to-page copy, or photos or films were not recognized in pre-scanning.	Press the OK button to clear the error. The LCD automatically returns to the display before the error occurrence.
Press ⬦. (⬦: Color button icon)	The Black button was pressed, but it is invalid.	A temporary error. Press the Color button to continue the operation.
Press ⬦. (⬦: Black button icon)	The Color button was pressed, but it is invalid.	A temporary error. Press the Black button to continue the operation.
There are no photos in memory card.	Supported image files are not in the memory card.	The error message is displayed for a while, then disappears.
The value exceeds the number of copies you can print.	During selecting images or specifying the number of copies, the total print quantity exceeds the prescribed value of 999.	After the error message is displayed for a while, the last operation before the error is cancelled, and the total print quantity returns to the value before the error.
Memory card is not set. Insert the card after checking the direction.	No memory card is inserted in the slot.	Set a memory card.
DPOF information is not saved in the memory card.	DPOF print was selected in the menu, but no DPOF files are contained in the memory card.	The error message is displayed for a while, then the LCD automatically returns to the display before the error occurrence.
The number of copies to print is not set. Input the number of copies.	Multi-photo print was attempted without specifying the print quantity (with the print quantity left "0" (zero)).	The error message is displayed for a while, then disappears. Specify the print quantity.
This layout is available only for A4 or 8.5"x11"(LTR).	In Layout print, "Mixed 1, 2, or 3" which is available only with A4 or LTR size paper is selected, but the paper size is not set to A4 or LTR.	The error message is displayed for a while, then the LCD automatically returns to the display before the error occurrence.

Settings cannot be changed when printing stickers.	With Sticker print selected, the Settings button was pressed.	The error message is displayed for a while, then the LCD automatically returns to the display before the error occurrence.
Change the setting after removing the card.	With a memory card inserted in the slot, change of the Read/Write attribute was attempted.	The error message is displayed for a while, then the LCD automatically returns to the display before the error occurrence.
The card is currently write-enabled. Set to read-only mode before performing operation.	With the memory card set to the Read/write mode, Card Direct printing operation was attempted from the menu.	The error message is displayed for a while, then the LCD automatically returns to the display before the error occurrence.
The paper size is not correct. Check the page size you have set.	Non-supported size of paper for PictBridge Camera Direct printing is selected.	Cancel printing on the digital camera.
Failed to scan Photo Index Sheet. Check the orientation, position and marking. <See manual>	The machine failed in scanning the Photo Index Sheet.	Press the OK button to clear the error. The LCD automatically returns to the display before the error occurrence.
Failed to scan. Try again.	The machine failed in scanning the film. No film was set, or selection of a film type (color or black & white, positive or negative) was wrong.	Press the OK button to clear the error. The LCD automatically returns to the display before the error occurrence.
Film scanning error. Remove FAU (Film Adapter Unit) protective sheet.	The optical volume was insufficient for scanning the film. (The FAU protective sheet was not removed, or the lamp itself was defective.)	Press the OK button to clear the error. The LCD automatically returns to the display before the error occurrence.
Photo scan error. Photo size is too large. Leave at least 10mm between photos.	In cropping multiple photos at the same time, since the space between the photos were not sufficient, the photos were considered as a single JPEG file, and the file became too large.	Press the OK button to clear the error. The LCD automatically returns to the display before the error occurrence.
Perform operation after the film is scanned.	After the PHOTO/FILM button was pressed, printing was attempted from the menu without scanning photos or films.	The error message is displayed for a while, then the LCD automatically returns to the display before the error occurrence.

2-4. Warnings

Warning	Message on the LCD	Solution

Low ink	The following ink is low. Continue? (Icon of each ink tank) Yes No
	
	In Camera Direct Printing, only "Yes" can be selected.
		- Select **Yes**, and press the OK button.
		    => Printing starts, and it is indicated on the LCD.
		- Select **No**, and press the OK button.
		    => Printing is cancelled, and the LCD returns to the display immediately before printing was attempted.

Print head temperature rise	If the print head temperature does not fall, the error code "5200" is displayed, indicating the print head temperature rise error.	When the print head temperature falls, the error is automatically cleared. Note: If the print head temperature exceeds the specified limit when the scanning unit (printer cover) is opened, the carriage does not move to the ink tank replacement position.
Protection of excess rise of the print head temperature	If the print head temperature does not fall, the error code "5200" is displayed, indicating the print head temperature rise error.	If the print head temperature exceeds the specified limit, an intermission is inserted during printing.
Restrictions on paper	The current paper cannot be set. Change the size and type.	Re-select the supported paper type and size.

Recommendation of the print head alignment (only on arrival of the machine)	Head alignment required. Load paper and press [OK]. Yes No	- Select **Yes**, and press the OK button.
		    => Automatic print head alignment is done.
		- Select **No**, and press the OK button.
		    => The procedures on arrival of the machine are finished.

USB cable not connected	Connect USB cable and turn on the PC.	Connect the USB cable.
Cancellation of trimming	Reset trimming effect?	With a trimmed image present, when printing on a DVD or CD is attempted, the message is displayed.

		Yes No	- Select **Yes**, and press the OK button.
			=> The trimming is cancelled, and printing on a DVD or CD can be done.
			- Select **No**, and press the OK button.
			=> The LCD returns to the display immediately before the message was displayed.
Cancellation of image select information	Reset the selected photo information? Yes No		When one or more images are selected in Multi-photo print or Layout print, and if a user tries to display the menu or sub-menu, the message is displayed.
			- Select **Yes**, and press the OK button.
			=> The image selection is cancelled, and the menu or sub-menu is displayed.
			- Select **No**, and press the OK button.
			=> The LCD returns to the display immediately before the message was displayed.

2-5. Troubleshooting by Symptom

		Symptom	Solution

Faulty operation		The power does not turn on. The power turns off immediately after power-on.	- Confirm the connection of
			  - the power cord, and
			  - between the logic board and the power supply unit.
			- Replace the
			  - AC adapter, or
			  - logic board ass'y.

		A strange noise occurs.	- Remove foreign material. - Attach a removed part if any. - Check the operation of the moving parts (such as purge unit, carriage unit, and paper feeding mechanism) - Replace a faulty part, if any.

		Nothing is displayed on the LCD.	- Confirm the connection between the operation panel, the scanner unit, and the logic board.
			- Replace the
			  - LCD, or
			  - logic board ass'y.

		A portion of the LCD is not displayed.	- Perform the button and LCD test in the service mode, and confirm that the LCD is displayed without any segments missing.
			- Confirm the connection between the operation panel, the scanner unit, and the logic board.
			- Replace the
			  - LCD, or
			  - logic board ass'y.

		Paper feed problems (multi-feeding, skewed feeding, no feeding)	- Examine the inside to confirm that no parts are damaged, and the rollers are clean.
			- Remove foreign material.
			- Adjust the paper guide properly.
			- Confirm the connection of each harness and the logic board.
			- Replace the
			  - sheet feeder unit,
			  - cassette, or
			  - logic board ass'y.

	Carriage movement problems (contact to other parts, strange noise)	- Confirm that the carriage timing slit strip film is free from damage or grease.
		- Clean the carriage timing slit strip film (with ethanol and lint-free paper).
		- Replace the
		  - carriage timing slit strip film, or
		  - carriage unit.

	Faulty scanning (no scanning, strange noise)	- Confirm the connection between the scanner unit and the logic board.
		- Replace the
		  - scanner unit, or
		  - logic board ass'y.

	The FAU lamp does not light.	- Confirm the connection between the scanner unit, FAU, and the logic board.
		- Replace the
		  - document pressure plate unit (FAU), or
		  - logic board ass'y.

Unsatisfactory print quality	No printing, or no color ejected.	- Replace the
		  - ink tank,
		  - print head[*1], or
		  - logic board ass'y.
		- Remove foreign material from the purge unit caps, if any.
		- Replace the purge unit.

	Printing is faint, or white lines appear on printouts even after print head cleaning.
	Line(s) not included in the print data appears on printouts.
		- Remove and re-install the print head.
		- Replace the
		  - ink tank,
		  - print head[*1],
		  - purge unit, or
		  - logic board ass'y.

	Paper gets smeared.	- Feed several sheets of paper. - Perform bottom plate cleaning. - Clean the paper path with cotton swab or cloth. - Clean the ASF sub-rollers.

	A part of a line is missing on printouts.	- Replace the
		  - ink tank, or
		  - print head[*1].

	Color hue is incorrect.	- Replace the
		  - ink tank, or
		  - print head[*1].
		- Perform print head alignment.

	Printing is incorrect.	Replace the logic board ass'y.

	No ejection of black ink.	- Replace the
		  - ink tank, or
		  - print head[*1].
		- Remove foreign material from the purge unit caps, if any.
		- Replace the purge unit.

	Graphic or text is enlarged on printouts.	**When enlarged in the carriage movement direction:**
		- Clean grease or oil off the timing slit strip film
		- Replace the
		  - timing slit strip film,
		  - carriage unit, or
		  - logic board ass'y.

		When enlarged in the paper feed direction:
		- Clean grease or oil off the timing slit disk film
		- Replace the
		- timing slit disk film,
		- timing sensor unit, or
		- logic board ass'y.
Faulty scanning	No scanning.	- Confirm the connection between the scanner unit and the logic board ass'y.
		- Replace the
		- scanner unit, or
		- logic board ass'y.
	Streaks or smears on the scanned image.	- Clean the platen glass and the FAU lamp.
		- Confirm the connection between the scanner unit and the logic board ass'y.
		- Replace the
		- scanner unit,
		- logic board ass'y, or
		- sponge sheet.

*1: Replace the print head only after the print head deep cleaning is performed 2 times, and when the problem persists.

<Part 1: 2. LIST OF ERROR DISPLAY / INDICATION>

3. REPAIR

3-1. Notes on Service Part Replacement (and Disassembling / Reassembling)

Service part	Notes on replacement*1	Adjustment / settings	Operation check
Logic board ass'y QM2-3022	- Before removal of the logic board ass'y, remove the power cord, and allow for approx. 1 minute (for discharge of capacitor's accumulated charges), to prevent damages to the logic board ass'y. - Before replacement, check the waste ink amount (by service test print or EEPROM information print). [See 3-4. Verification Items, (1) Service test print, or (2) EEPROM information print, for details.]	**After replacement:** 1. Initialize the EEPROM. 2. Set the destination in the EEPROM. 3. Reset the waste ink counter. 4. Correct the CD / DVD and automatic print head alignment sensors. 5. Check the ink system function. 6. Adjust the line feeding. [See 3-3. Adjustment / Settings, (8) Service mode, for details of 1 to 6] 7. Perform the print head alignment in the user mode.	- EEPROM information print - Service test print - Printing via USB connection - Copy - Direct printing from a digital camera
Absorber kit QY5-0153		**After replacement:** 1. Reset the waste ink counter. [See 3.3. Adjustment / Settings, (8) Service mode.]	- Service test print - EEPROM information print
Carriage unit QM2-3025		**At replacement:** 1. Apply grease to the sliding portions. [See 3-3. Adjustment / Settings, (2) Grease application.] **After replacement:** 1. Correct the CD / DVD and automatic print head alignment sensors. [See 3.3. Adjustment / Settings, (8) Service mode.] 2. Check the ink system function. [See 3.3. Adjustment / Settings, (8) Service mode.] 3. Perform the print head alignment in the user mode.	- Service test print (Confirm CD / DVD and automatic print head alignment sensor correction, and ink system function.)
Paper feed motor QK1-1502	- The red screws securing the paper feed motor are allowed to be loosened. (DO NOT loosen any other red screws.)	**At replacement:** 1. Adjust the paper feed motor. [See 3-3. Adjustment / Settings, (1) Paper feed motor adjustment.]	
Platen unit QM2-3026		**At replacement:** 1. Check the ink system function. [See 3.3. Adjustment / Settings, (8) Service mode.]	- Service test print
PR lift shaft ass'y: QL2-0936		**At replacement:** 1. Apply grease to the sliding portions. [See 3.3. Adjustment / Settings, (2) Grease application.]	- Service test print
Carriage lift base unit QM2-2232		**At replacement:** 1. Apply grease to the sliding portions.	

		[See 3.3. Adjustment / Settings, (2) Grease application.]	
Timing slit strip film QC1-6526 Timing slit disk film QC1-6229	- Upon contact with the film, wipe the film with ethanol. - Confirm no grease is on the film. (Wipe off any grease thoroughly with ethanol.) - Do not bend the film	**After replacement:** 1. Perform the print head alignment in the user mode.	- Service test print
Print head QY6-0061		**After replacement:** 1. Perform the print head alignment in the user mode.	- Service test print

*1: General notes:

- Make sure that the flexible cables and wires in the harness are in the proper position and connected correctly.

[See 3-2. Special Notes on Repair Servicing, (3) Flexible cable and harness wiring, connection, for details.]

- Do not drop the ferrite core, which may cause damage.

- Protect electrical parts from damage due to static electricity.

- Before removing a unit, after removing the power cord, allow the machine to sit for approx. 1 minute (for capacitor discharging to protect the logic board ass'y from damages).

- Do not touch the timing slit strip film and timing slit disk film. No grease or abrasion is allowed.

- Protect the units from soiled with ink.

- Protect the housing from scratches.

- Exercise caution with the red screws, as follows:

  i. The red screws of the paper feed motor may be loosened only at replacement of the paper feed motor unit (DO NOT loosen them in other cases).

  ii. DO NOT loosen the red screws on both sides of the main chassis, securing the carriage shaft positioning (they are not adjustable in servicing)

3-2. Special Notes on Repair Servicing

(1) External cover, scanner unit, and FAU removal

(I) Remove the cassette, and front door (paper output tray) with door damper.
- Slide the cassette to remove it from the main unit.
- Slightly warp the front door to release the right side of the door.
- While releasing the door damper on the left side of the front door, remove the door.

(II) Remove the screws (in the red circles below) from the side covers and the main case.

(III) Remove the front cover L and R.

Front cover L:
- Protect the cover from being scratched or the claws from being damaged by the Open button or the release lever.
- While removing the side cover L by sliding its front side outward (in the direction of the red arrow in the photo below), remove the front cover L.
- For the correct locations of claws and bosses on the back side of the front cover L, see the photo on the right (4 claws in the purple circles, 2 bosses in the green circles).
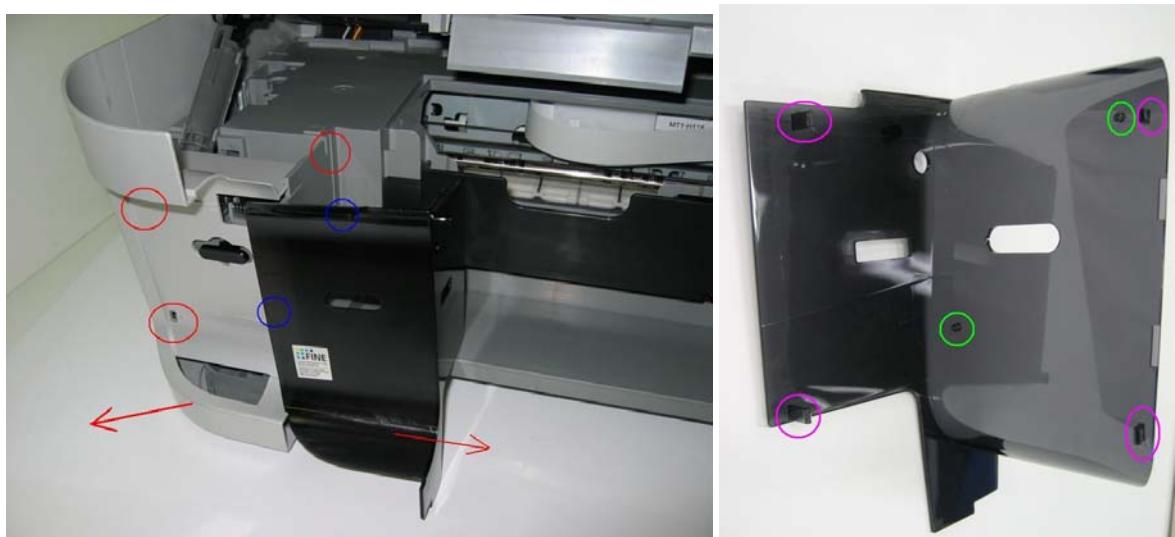
Front cover R:
- While removing the side cover R by sliding its front side outward (in the direction of the red arrow in the photo below), remove the front cover R.

- Also remove the card door which is between the front cover R and the side cover R.
- For the correct locations of claws and bosses on the back side of the front cover R, see the photo on the right (4 claws in the purple circles, 2 bosses in the green circles).
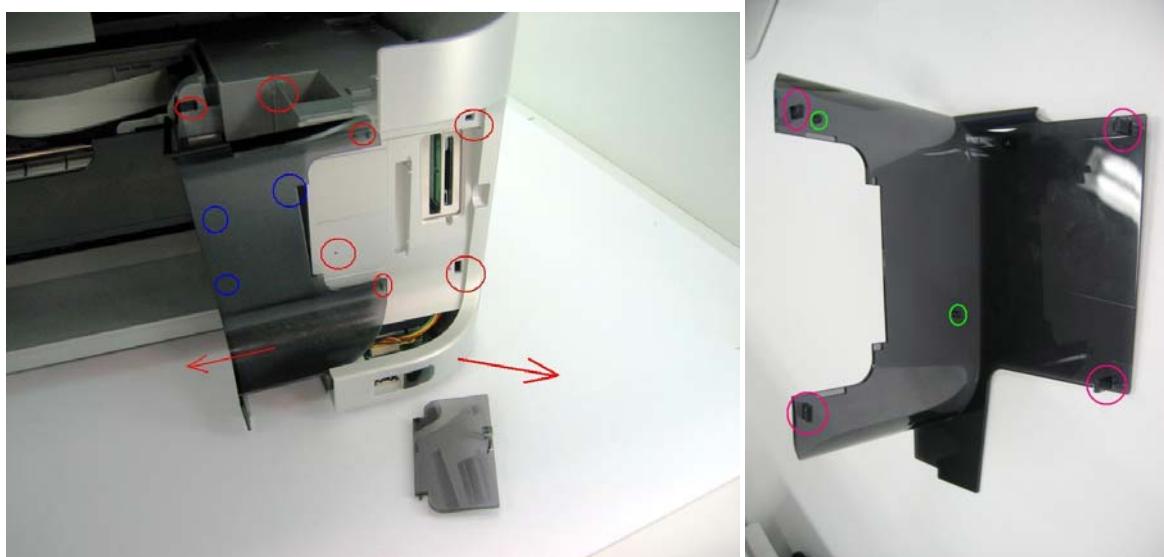
(IV) Remove the cable cover.
- Push the claw of the side cover R (indicated by the triangle mark in the red circle in the photo) with a flat-blade screwdriver to release.
- Slide the side cover R outward so that the cable cover in the back can be removed.
- Lift the cable cover to remove the FAU cable from the groove of the side cover.

(V) Remove the side cover L and R (3 claws each).
Side cover R:
- Be cautious of the FAU cable, IrDA board, and card LED guide.
- For the shape of the boss and recess, see the photos below.
- The bosses of the bottom case will fit into the square holes of the side cover.
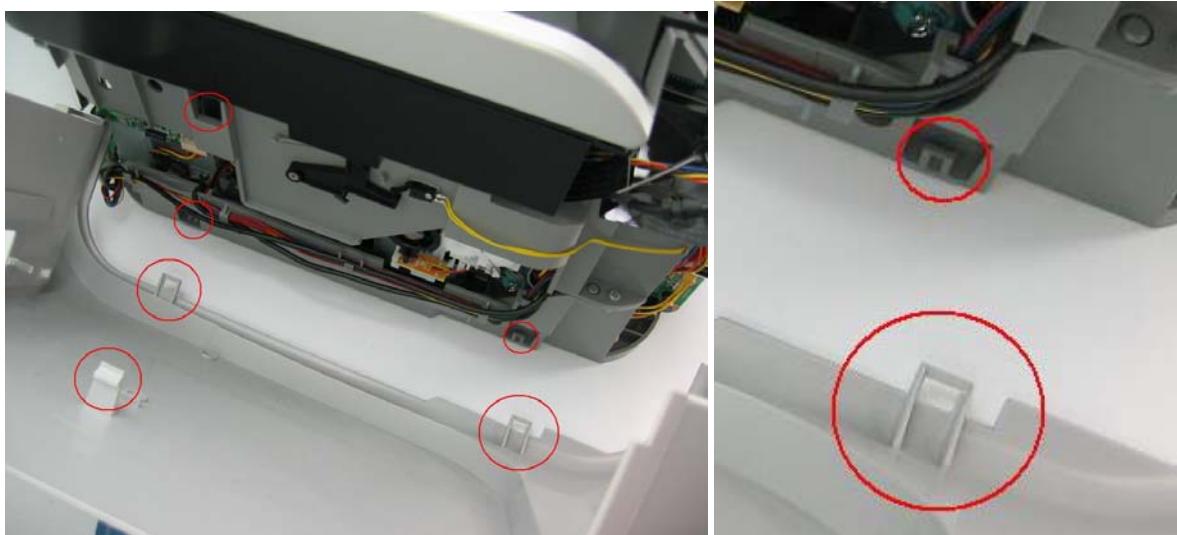
Side cover L:
- Be cautious not to contact the Open button.
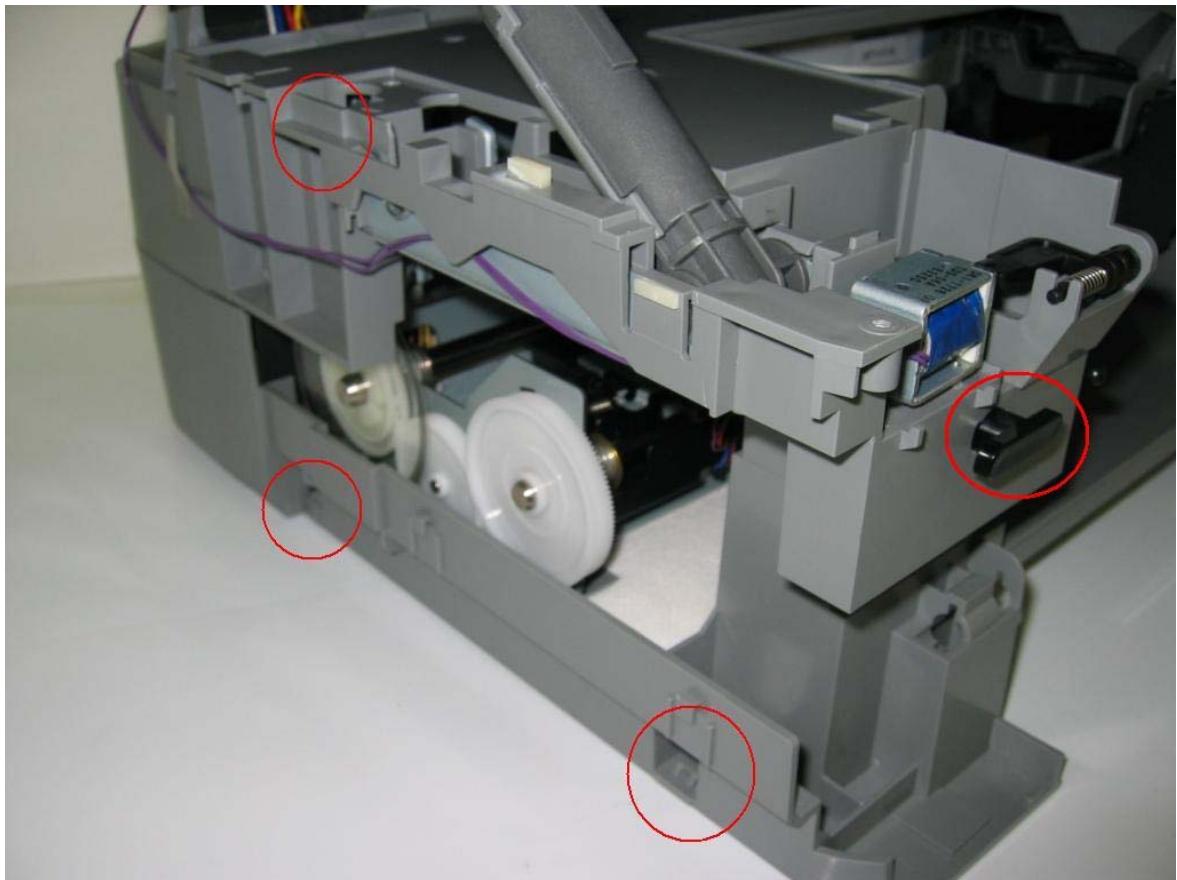
Back of the side covers:
- The boss and recess are shown in the red circles in the photos below (side cover L on the left, side cover R on the right).
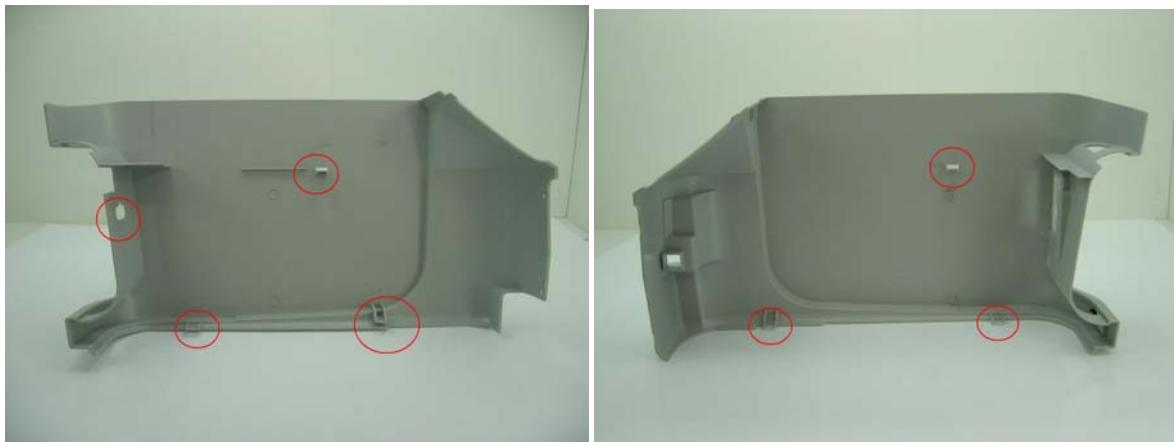
(VI) Remove the scanner unit and FAU cables from the logic board.
- The photo on the left shows the cables connected, and the photo on the right shows the cables removed. [See Part 3, 2. CONNECTOR LOCATION AND PIN LAYOUT.]

Note: A square core is taped to the CN602 connector.
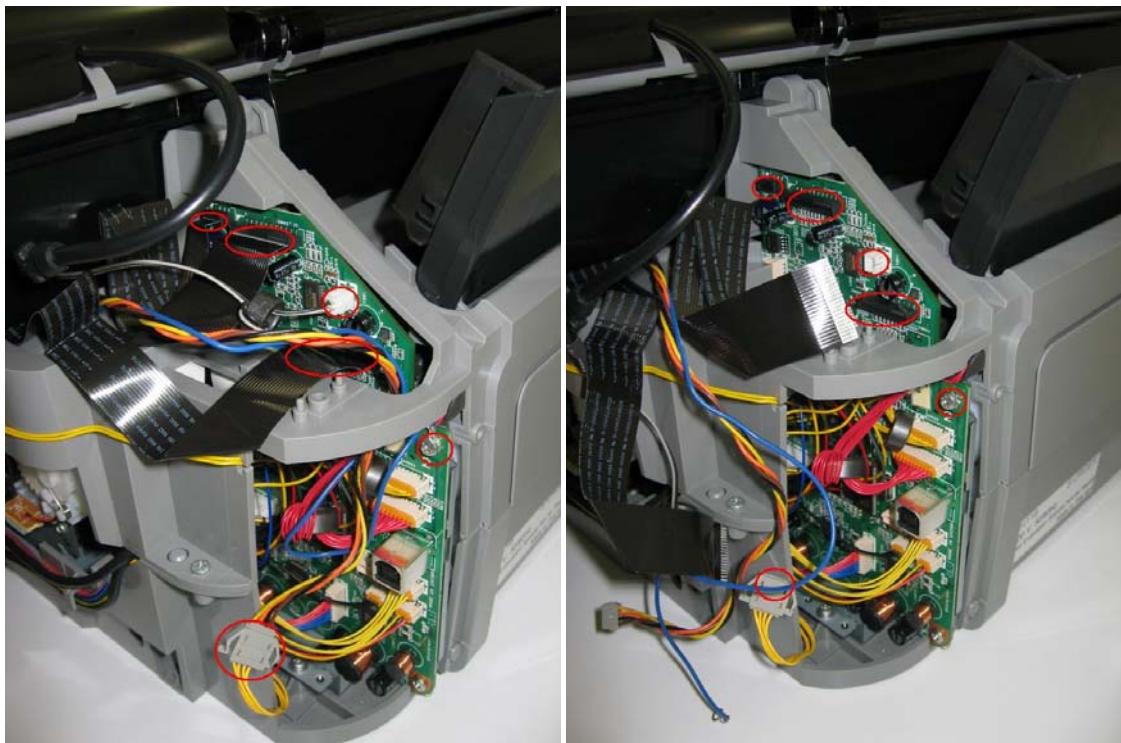
(VII) Remove the scanner stop arm.
- While holding the scanner unit, disengage the main case side of the scanner stop arm.
- While twisting the scanner stop arm, disengage the scanner unit side of the scanner stop arm.
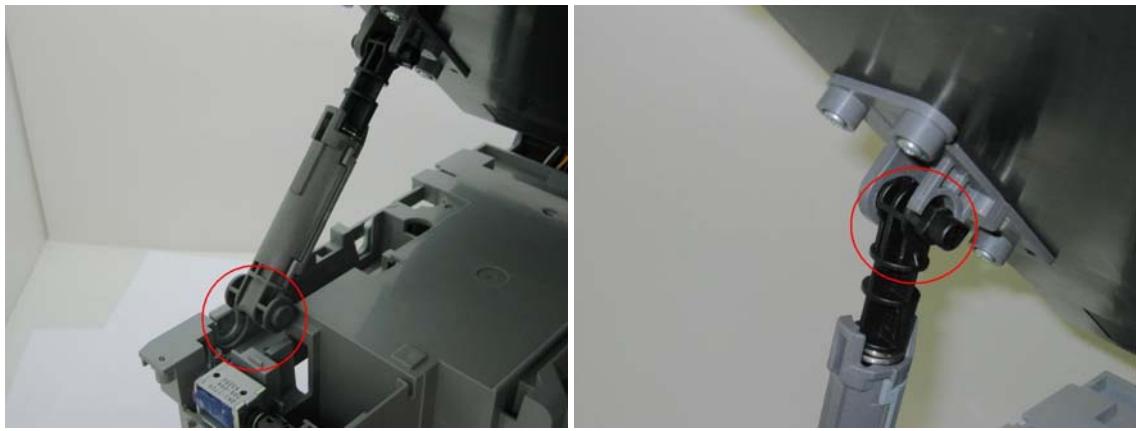
- When assembling the scanner stop arm, make sure the black sticker side is up, as shown in the photos below (overhead view).
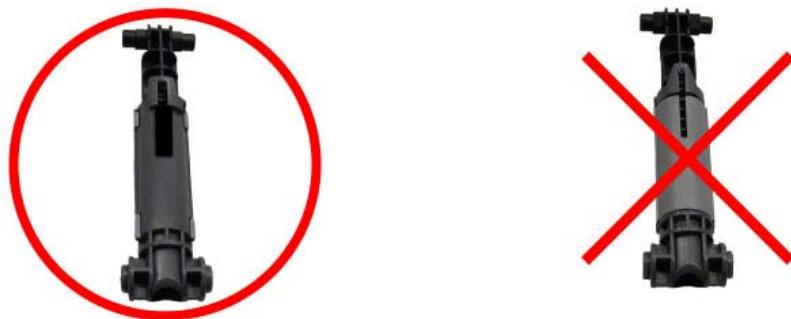
(VIII) Remove the FAU and the scanner unit.
  - Lift the FAU out from the hinge holes of the scanner unit.
  - Disengage one side of the scanner unit from the main case, then the other side (see the photo on the right).

(IX) Remove the paper support.
  - Disengage one side of the paper support from the main case, then the other side of the paper support.
  - The photo on the right shows the main unit with the external parts removed.

(2) Operation panel removal

(I) Remove the panel cover L and R.

- Insert a flat-blade screwdriver into a space between the panel cover and the scanner unit, and slowly push the cover up to remove it.
- For claws, see the photos below (5 claws each).

(II) Remove the panel board.

- Remove the 4 screws (in the blue circles in the photo below) from the panel board.

- Release the 2 claws (in the yellow circles in the photo), and raise the panel board.
- While paying attention to the 3 locations at the top of the panel board (in the green circles in the photo) , turn the panel board over.

- Remove the cable from the connector, and separate the panel board from the scanner unit.
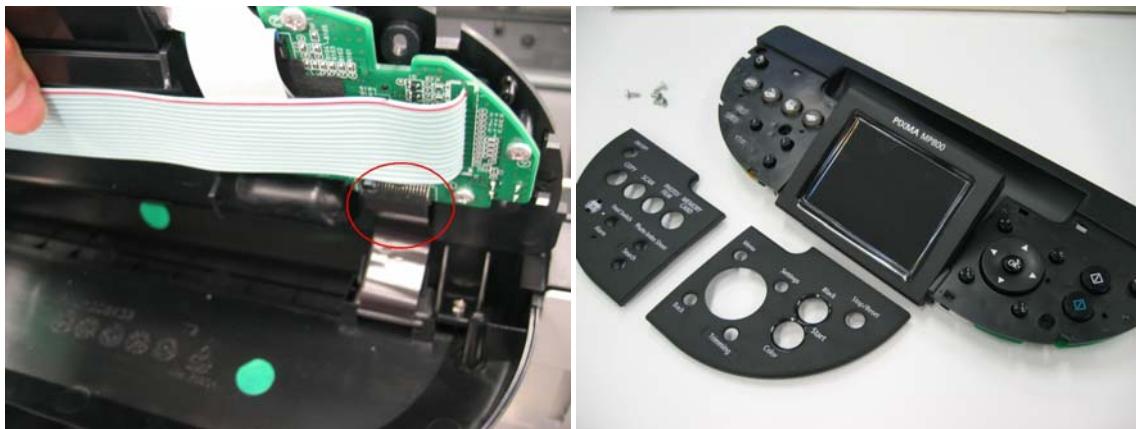
(3) Flexible cable and harness wiring, connection

Be cautious of wiring of the flexible cables and harness. Improper wiring or connection may cause breakage of a line, leading to ignition or emission of smoke.

For wiring details, refer to the Parts Catalog, and .

Rear view with the main case removed:
(Logic board side on the left, AC adapter / PF motor side on the right)
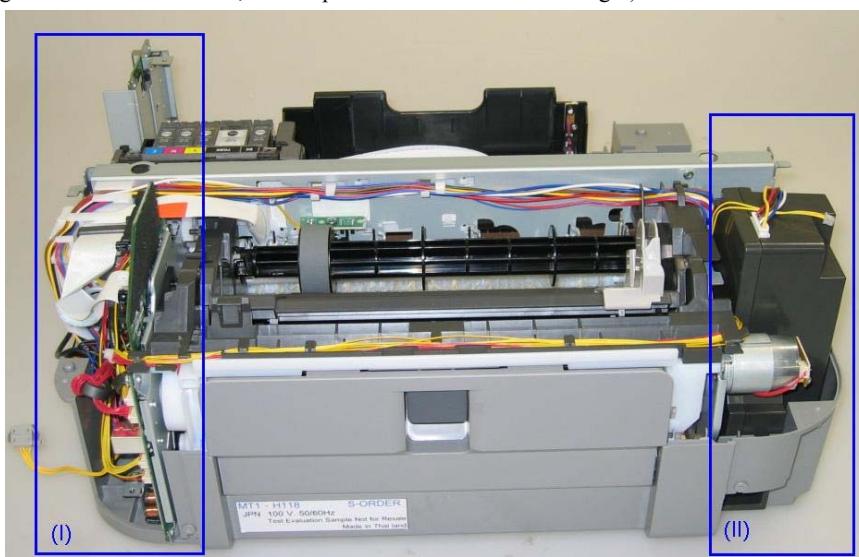
(I) Logic board ass'y wiring

Each cable in place of the side of the bottom case unit:
(Be cautious of the points in the red circles.)

With the IrDA board, memory card board, and bottom case unit removed:
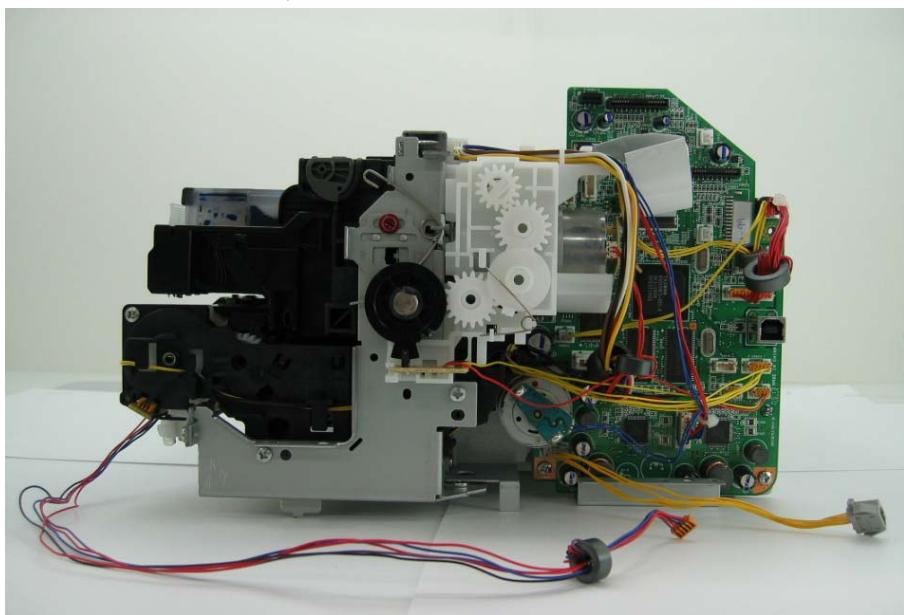
(II) AC adapter and paper feed motor side wiring

With the bottom case unit and AC adapter installed:
(Be cautious of the position of the solenoid relay harness connector in the red circle.)
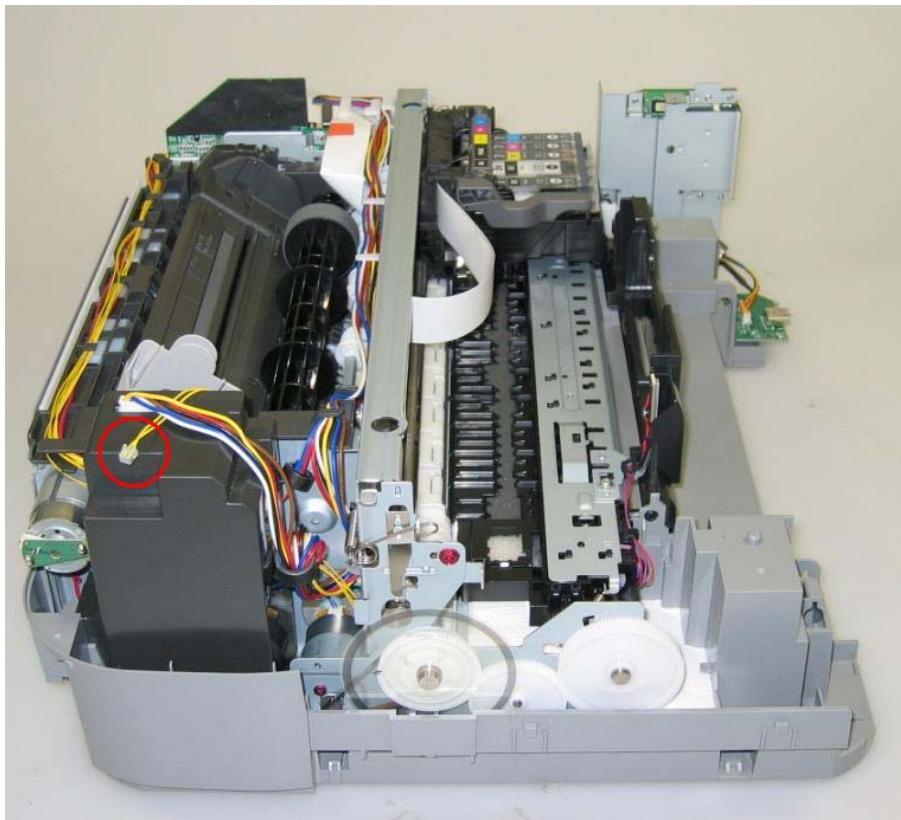
With the bottom case unit and AC adapter removed:
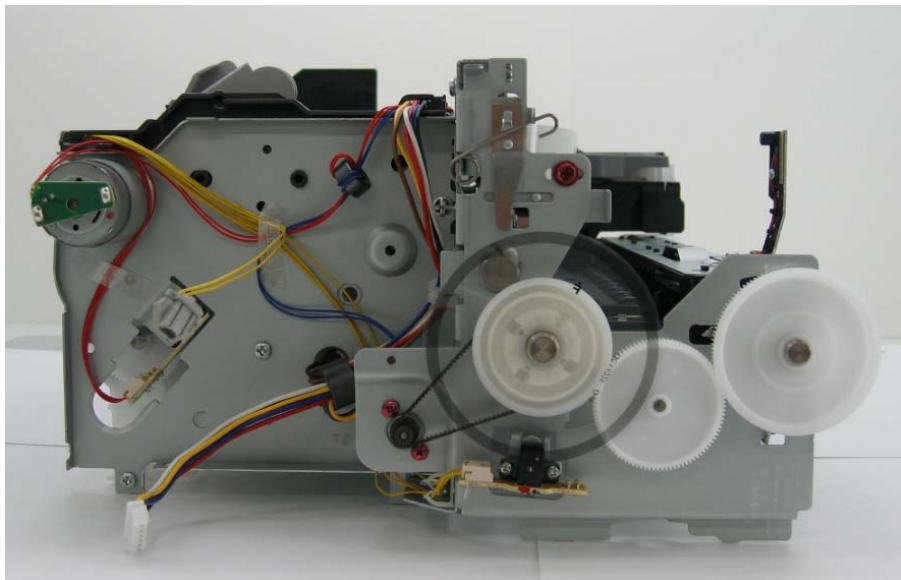
3-3. Adjustment / Settings

(1) Paper feed motor adjustment

Perform the following adjustments when the paper feed motor unit is replaced:

1) When attaching the motor, fasten the screws so that the belt is properly stretched (in the direction indicated by the blue arrow in the figure below).

2) After replacement, be sure to perform the service test print, and confirm that no strange noise or faulty print operation (due to dislocation of the belt or gear, or out-of-phase motor, etc.) occurs
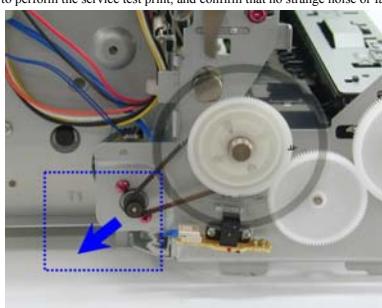
Note: The red screws securing the paper feed motor may be loosened only at replacement of the paper feed motor unit. DO NOT loosen them in other cases.

(2) Grease application

1) Machine unit

No	Part name		Where to apply grease / oil	Grease / oil name	Grease / oil amount	Number of drops*	Number of locations to apply grease / oil
1	Chassis ass'y	①	Entire surface the carriage slider contacts	Floil KG107A	27 to 54 mg	3	1
2	Chassis ass'y	②	PR lift shaft cam contact portion (at 3 locations)	Floil KG107A	9 to 18 mg	1	3
3	Adjust plate L	③	Carriage shaft cam L sliding portion	Floil KG107A	18 to 36 mg	2	1
4	Chassis ass'y	④	Carriage shaft sliding portion on the left side of the chassis (at 2 locations)	Floil KG107A	9 to 18 mg	1	2
5	Chassis ass'y	⑤	Carriage shaft sliding portion on the right side of the chassis (at 2 locations)	Floil KG107A	9 to 18 mg	1	2
6	Carriage shaft	⑥	Entire surface of the carriage shaft where the carriage unit slides	Floil KG107A	200 to 400 mg		1
7	Carriage shaft spring L	⑦	Carriage shaft sliding portion (to the end of the spring)	Floil KG107A	9 to 18 mg	1	1
8	Adjust plate R	⑧	Carriage shaft cam R sliding portion	Floil KG107A	18 to 36 mg	2	1
9	Carriage shaft	⑨	Carriage shaft surface where the carriage slides (and where machine-application of the grease is not feasible)	Floil KG107A	9 to 18 mg	1	1
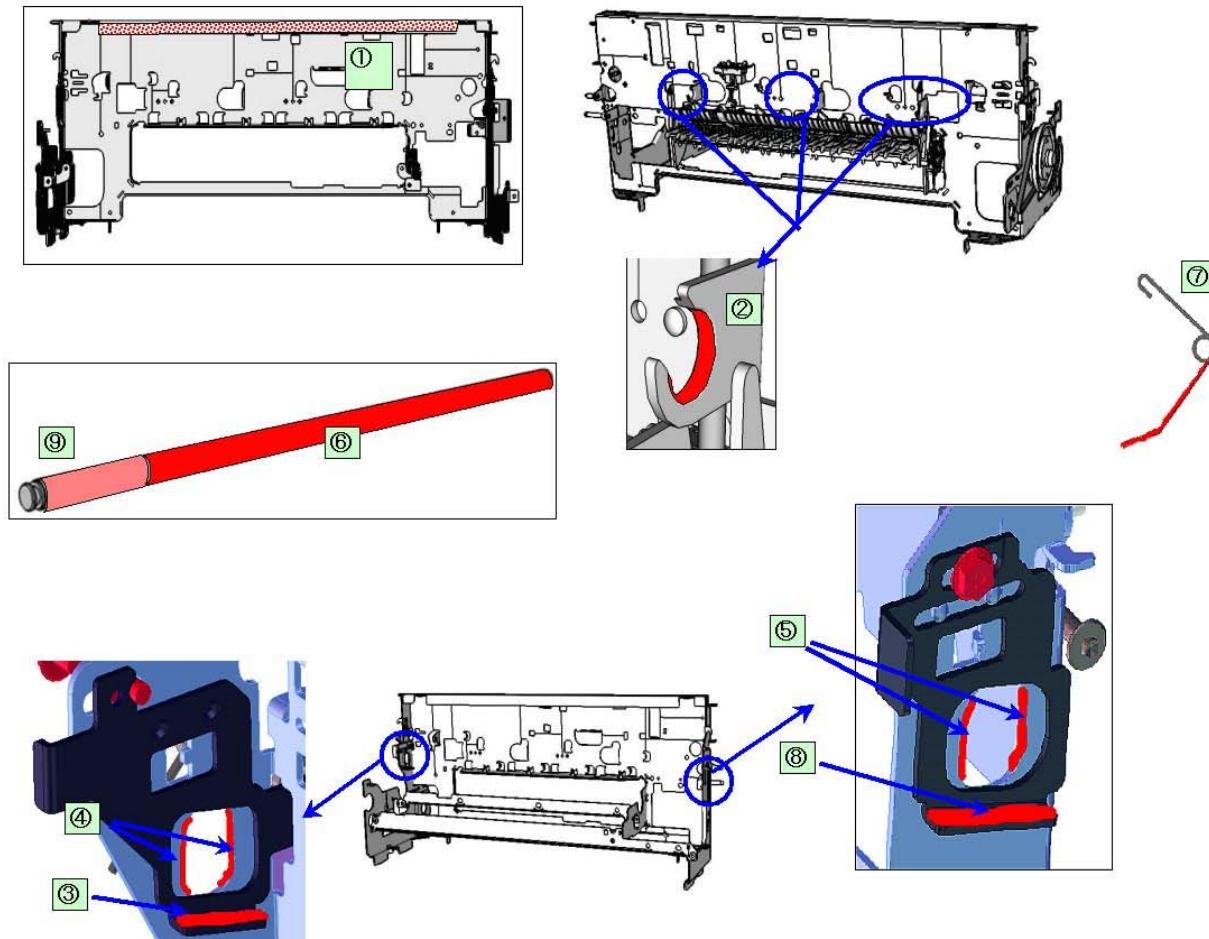
* 1 drop = 9 to 18 mg

1-24

2) CL base / CL gear

No	Part name		Where to apply grease / oil	Grease / oil name	Grease / oil amount	Number of drops*	Number of locations to apply grease / oil
10	CL input gear	⑩	Joint of the CL gear base	Floil KG107A	9 to 18 mg	1	1
11	CL gear base	⑪	Outer surface of the CL idler gear cylinder	Floil KG107A	9 to 18 mg	1	1

* 1 drop = 9 to 18 mg
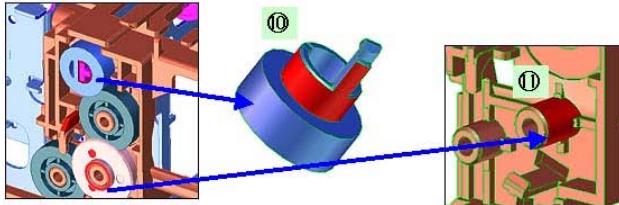
3) PR shaft / LF roller bushing

No	Part name		Where to apply grease / oil	Grease / oil name	Grease / oil amount	Number of drops*	Number of locations to apply grease / oil+H18
12	LF roller ass'y	⑫	LF roller bushing L spring contact	Floil KG107A	4.5 to 9 mg	1/2	1
13	PR shaft ass'y	⑬	PR spring sliding portion (at 4 locations)	Floil KG107A	9 to 18 mg	1	4
14	PR shaft ass'y	⑭	PR holder contact (at 4 locations)	Floil KG107A	13.5 to 27 mg	1.5	4

* 1 drop = 9 to 18 mg
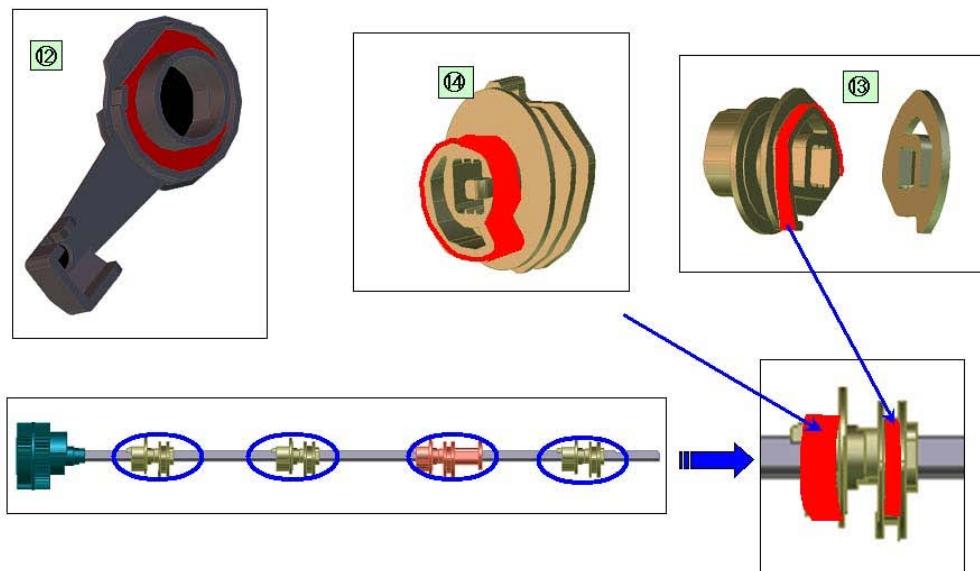
(3) Waste ink counter setting

Before replacement of the logic board ass'y, check the waste ink amount. After the logic board ass'y is replaced, set the waste ink amount to the replaced logic board ass'y.

In addition, according to the waste ink amount, replace the waste ink absorber (ink absorber kit). When the waste ink absorber is replaced, reset the waste ink counter (to "0%").

How to check the waste ink amount:

How to set the waste ink amount:

(4) White sponge sheet attachment

Position one of the corners of the white sponge sheet at the scanning reference point on the platen glass (back left where the blue lines cross in the photo below). Peel off the cover sheet from the double-sided adhesive tape, and slowly close the document cover with the sponge frame on. The sponge sheet will attach to the sponge frame.
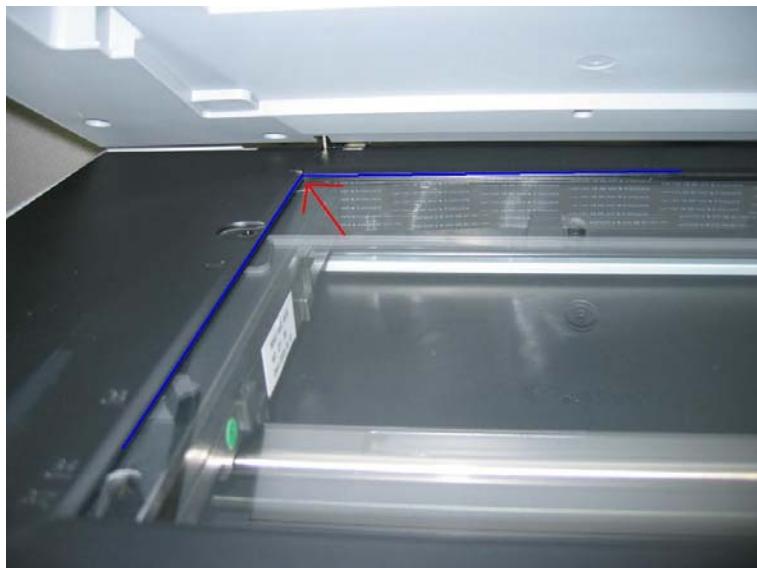
Open the document cover to confirm the following:

- No extension of the sponge edges over the mold part of the document cover.
- No gap between the platen glass reference edges and the corresponding sponge edges.

(5) Solenoid position

Position the solenoid so that the solenoid shaft is parallel to the tray lock lever operation axis.

Move the tray lock lever right and left to confirm that the solenoid shaft moves smoothly.

(For cable position, see the photo on the right.)
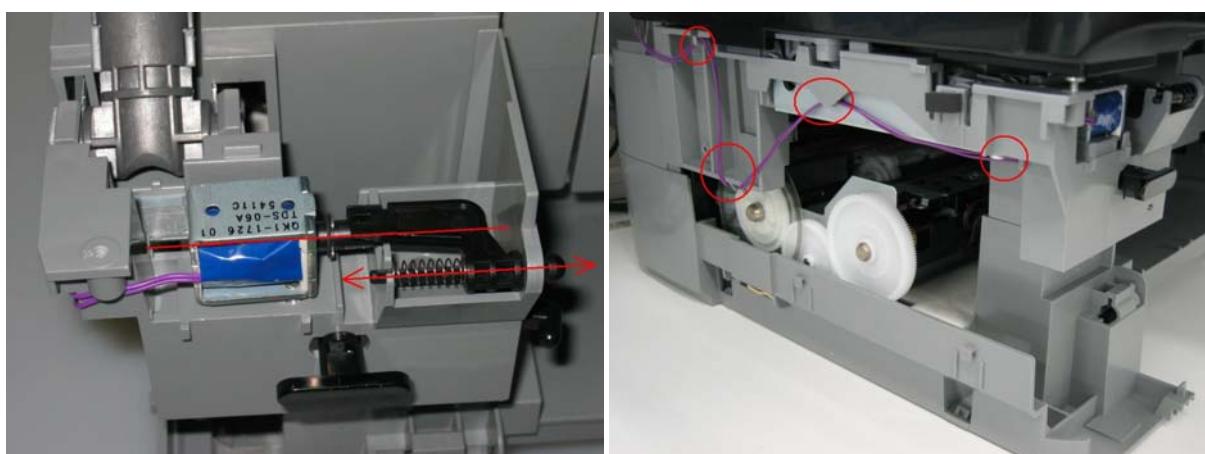
(6) Front door damper position

Fit the door damper (attached to the front door) into the machine with the protrusion side facing up. Then, fix the right side of the front door in place.

Close the front door, and press the Open button to confirm the front door opens properly.

(7) User mode

On the operation panel, select **Maintenance/settings**, **Device settings**, and a desired function, then press the OK button.

Function	Purpose
Nozzle check	To confirm the print head nozzles eject ink properly. Do the cleaning if necessary.
Cleaning	To unclog the print head nozzles and maintain the print head in a good condition. Use this function when printing is missing or white lines appear on the nozzle check pattern.
Deep cleaning	To improve the print head nozzle conditions when the cleaning is not effective. Since the deep cleaning consumes more ink than the cleaning, use this function only when necessary.
Auto head align (automatic print head alignment)	To improve unsatisfactory print results or dot-misalignment on a line.
Manual head align (manual print head alignment)	To improve unsatisfactory print results or dot-misalignment on a line. Use this function when the automatic print head alignment cannot be done properly, or to align the print head at user's discretion.
Head alignment print	To print the current print head alignment values for confirmation.
Roller cleaning	To solve a paper feed problem. In the roller cleaning, the paper feed rollers rotate while being pressed to the paper lifting plate. Since the rollers will wear, use this function only when necessary.
Bottom plate cleaning	To remove ink attached to the ASF paper path and the platen, using paper.

(8) Service mode

<Service mode operation procedures>

1) With the machine power turned off, while pressing the Stop/Reset button, press and hold the ON/OFF button. (DO NOT release the buttons). The COPY button lights in green to indicate that a function is selectable.

2) While holding the ON/OFF button, release the Stop/Reset button. (DO NOT release the ON/OFF button.)

3) While holding the ON/OFF button, press the Stop/Reset button 2 times, and then release both the ON/OFF and Stop/Reset buttons. (Each time the Stop/Reset button is pressed, the Alarm LED and COPY button light alternately, Alarm in orange and COPY in green, starting with Alarm LED.)

4) When the COPY button lights in green, press the Stop/Reset button the specified number of time(s) according to the function listed in the table below. (Each time the Stop/Reset button is pressed, the Alarm LED and COPY button light alternately, Alarm in orange and COPY in green, starting with Alarm LED.)

Time(s)	LED indication	Function	Remarks
0 times	Green (COPY)	Power off	When the print head is not installed, the carriage returns and locks in the home position capped.

Times	LED indication	Function	Notes
1 time	Orange (Alarm)	Service test print	See 3-4. Verification Items, (1) Service test print.
2 times	Green (COPY)	EEPROM information print	Set a sheet of A4 or letter size paper. See 3-4. Verification Items, (2) EEPROM information print.
3 times	Orange (Alarm)	EEPROM initialization	The following items are NOT initialized, and the shipment arrival flag is not on: - USB serial number - Destination settings - Waste ink counter - CD / DVD correction value - LF correction value
4 times	Green (COPY)	Waste ink counter resetting	Once in the service mode: Press the On/Off button 2x after pressing the Stop button 4x.
5 times	Orange (Alarm)	Destination settings	See 3-3. Adjustment / Settings, (8) Service mode, "Destination settings procedures."
6 times	Green (COPY)	Print head deep cleaning	(Cleaning of both black and color)
7 times	Orange (Alarm)	LF correction	See 3-3. Adjustment / Settings, (8) Service mode, "LF correction procedures."
8 times	Green (COPY)	CD / DVD check pattern print	Not used in servicing
9 times	Orange (Alarm)	CD / DVD print position correction (horizontal: X direction)	Not used in servicing.
10 times	Green (COPY)	CD / DVD print position correction (vertical: Y direction)	Not used in servicing.
11 times	Orange (Alarm)	Button and LCD test	See 3-3. Adjustment / Settings, (8) Service mode, "Button and LCD test procedures"
12 times	Green (COPY)	Return to the menu selection	
13 times	Orange (Alarm)	Return to the menu selection	
14 times	Green (COPY)	Left margin correction	Not used in servicing.
15 times	Orange (Alarm)	Waste ink amount setting	See 3-3. Adjustment / Settings, (8) Service mode, "Waste ink amount setting procedures"
16 to 21 times	Green at even numbers (COPY) Orange at odd numbers (Alarm)	Return to the menu selection	

Note: - If the Stop/Reset button is pressed 16 or more times, the Alarm LED (orange) or COPY button (green) lights steadily without any changes.

- At the end of the service mode, press the ON/OFF button. To protect the media sensor from being dislocated during transportation, the paper lifting plate of the sheet feeder unit will be raised.

<Destination settings procedures>

In the destination settings mode, press the Stop/Reset button the specified number of time(s) according to the destination listed in the table below, and press the ON/OFF button.

Time(s)	LED indication	Destination	CD / DVD print
0 times	Green (COPY)	No change of the destination	
1 time	Orange (Alarm)	Japan	Supported
2 times	Green (COPY)	Korea	Not supported

3 times	Orange (Alarm)	US	Not supported
4 times	Green (COPY)	Europe	Supported
5 times	Orange (Alarm)	Australia	Supported
6 times	Green (COPY)	Asia	Supported
7 times	Orange (Alarm)	China	Supported
8 times	Green (COPY)	Taiwan	Supported
9 times or more	Orange (Alarm)	Return to the menu selection	

Note: After setting the destination without logic board replacement, be sure to initialize the EEPROM (to prevent the Print Beam settings or copy paper settings from being different from the destination settings).

Confirm the model name and destination in service test print or EEPROM information print.

<Button and LCD test procedures>

Confirm the operation after replacement of the operation panel unit, logic board, or LCD.

1) Press the Stop/Reset button. The LCD turns blue, waiting for a button to be pressed.

2) Press each button on the operation panel.
The LCD is divided into segments, representing each button. The color of a segment corresponding to the pressed button changes to red.

3) When all the buttons are pressed, the entire LCD changes to a full red screen, and no further pressing of the buttons is accepted.
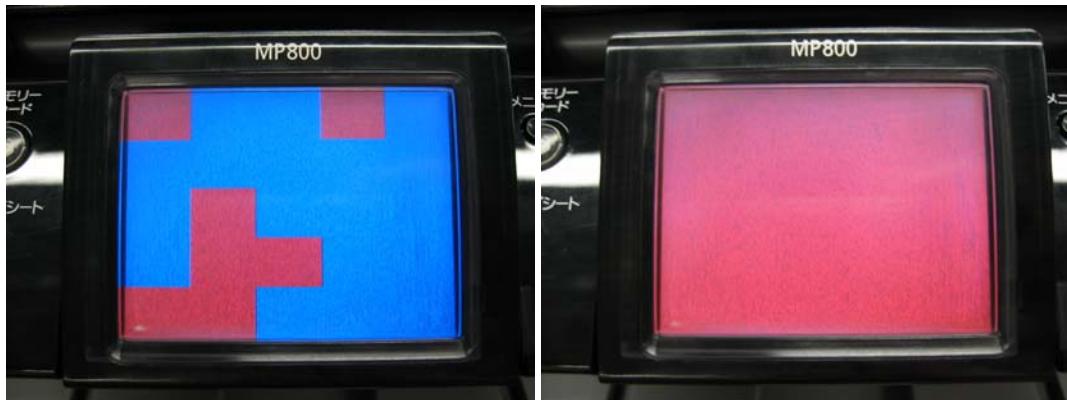
4) Open the scanning unit (printer cover) to display the color pattern. Only the ON/OFF button is enabled.

5) Press the ON/OFF button to return to the service mode menu selection.

<Waste ink amount setting procedures>

Set the waste ink amount data to a replaced new EEPROM after the logic board is replaced in servicing.

1) Before replacement of the logic board ass'y, check the waste ink amount in EEPROM information print. [See 3-4. Verification Items, (2) EEPROM information print.]

2) In the waste ink amount setting mode, press the Stop/Reset button the specified number of time(s) according to the waste ink absorber whose value should be transferred to the replaced new EEPROM. (Only the main waste ink absorber for the MP800)

Time(s)	Waste ink absorber	Remarks
0 times	Main waste ink absorber	
1 time	Platen waste ink absorber	Not valid for the MP800
	Both the main and platen waste ink	

1-30

2 times	absorbers	Only the main waste ink absorber is valid for the MP800
3 times or more	Not valid	Press the ON/OFF button to return to the waste ink amount setting mode.

3) Press the ON/OFF button to proceed to the next step.

4) The waste ink amount can be set in 10% increments by pressing the Stop/Reset button. Press the Stop/Reset button the appropriate number of time(s) to select the value which is closest to the actual waste ink amount.

Time(s)	Waste ink amount value to be set (%)
0 times	0%
1 time	10%
2 times	20%
3 times	30%
4 times	40%
5 times	50%
6 times	60%
7 times	70%
8 times	80%
9 times	90%
10 times or more	Not valid. Press the ON/OFF button to return to the waste ink amount setting mode.

5) Press the ON/OFF button to set the selected value to the EEPROM. Print EEPROM information to confirm that the value is properly set to the EEPROM.

<LF correction procedures>

After replacement of the feed roller ass'y or logic board ass'y in repair servicing or in refurbishment operation, adjust the line feeding.

1) In the LF correction mode, press the Stop/Reset button the specified number of times according to the paper to be used in LF correction listed in the table below, then press the ON/OFF button.

Time(s)	Paper type	Paper name
1 time	High Resolution Paper	Canon HR-101
2 times		Canon PB PAPER GF-500, Office Planner
3 times	Plain paper	HP BrightWhite, OFFICE 80
4 times		Canon Extra, STEINBEIS

Note:

- The High Resolution Paper is the most desirable for LF correction printing (Canon HR-101 is used at the production site), but 6 kinds of plain paper listed in the table above can also be used in LF correction. If plain paper other than the above is used, select any one of the paper types in this step, then select Pattern No. 0 (zero) in the step 3) below.

- Each time the Stop/Reset button is pressed, the Alarm LED and the COPY button light alternately, Alarm in orange and COPY in green.

- If the Stop/Reset button is NOT pressed, and only the ON/OFF button is pressed, the machine remains in the LF correction mode.

- If the Stop/Reset button is pressed 5 times or more, then the ON/OFF button is pressed, the machine returns to the service mode menu selection.

2) The LF correction pattern for the selected paper is printed.
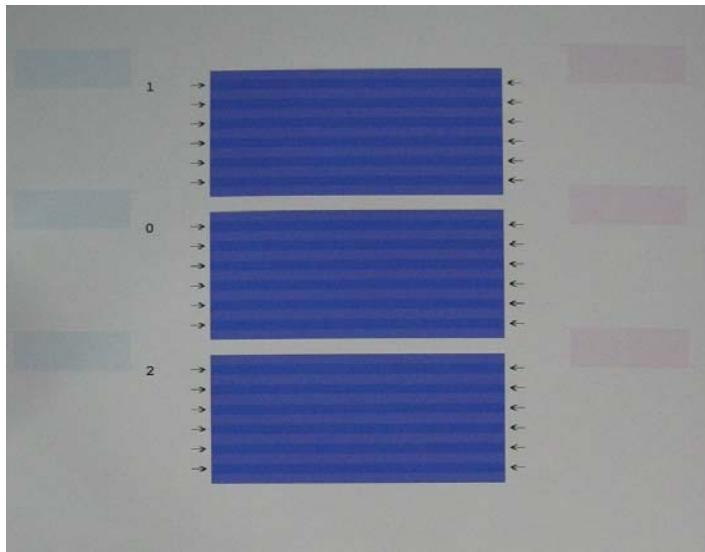
3) In the printout, select the Pattern No. in which streaks or lines (white or black) are the least noticeable, press the Stop/Reset button the same number of time(s) as the selected Pattern No., then press the ON/OFF button.

Note:

- If plain paper other than the 6 kinds specified in the table in step 1) is used, select the Pattern No. 0 (zero), leave the Stop/Reset button untouched, and press the ON/OFF button.

- Each time the Stop/Reset button is pressed, the Alarm LED and the COPY button light alternately, Alarm in orange and COPY in green.

- If the Stop/Reset button is pressed 3 times or more, then the ON/OFF button is pressed, the machine returns to the service mode menu selection.
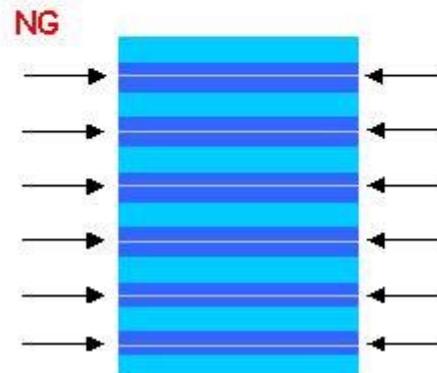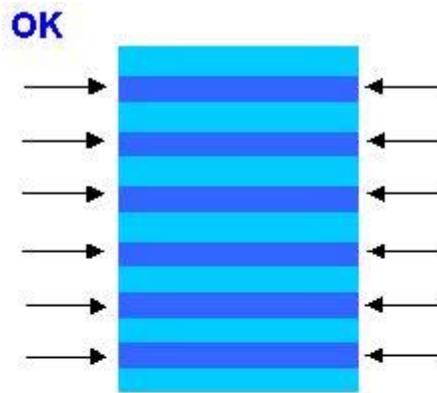
4) The LF correction value is written to the EEPROM, and the machine returns to the service mode menu selection.

Note: The LF correction value (0, 1, or 2) can be confirmed in EEPROM information print.

3-4. Verification Items

(1) Service test print

<EEPROM information contents>

On the service test print (sample below), confirm the EEPROM information as shown below. (The information is given in the upper portion of the printout.)

      MP800: Model name

      JPN: Destination

      M: Main firmware version

      C: Card reader firmware version

      USB (xxxxxx): USB serial number

      FA = xx xx xx: Reserved for plant use

      D = xxx.x: Waste ink amount (%)

      CDR (+xxxxx, +yyyyy): CD / DVD sensor position correction value

      LF: LF correction value

      AB (K = OK Y = ...): Ink system check result

<Print check items>

On the service test print (sample below), confirm the following items:

      - Check 1, top of form accuracy: The lines shall not extend off the paper.

      - Check 2, EEPROM information

      - Check 3, nozzle check pattern: Ink shall be ejected from all nozzles.

      - Check 4, check pattern for irregular line feeding: There shall be no remarkable streaks or unevenness.

      - Check 5, check pattern for uneven printing due to line feeding: There shall be no remarkable streaks.

      - Check 6, check pattern for uneven printing due to carriage movement (9600 dpi mode): There shall be no remarkable unevenness.

      - Check 7, check pattern for uneven printing due to carriage movement (standard mode): There shall be no remarkable unevenness.

      - Check 8, CD / DVD sensor and automatic print head alignment sensor correction: The results shall be OK.

<Service test print sample>


```
Check1
MP800 JPN M=0.54 C=0.00 USB(1000FF) FA=17 00 80 D=012.0 CDR(-00002,+00507) LF=2
AB(K=OK (K:3CC,Y:001) Y=OK (K:002,Y:3C4,M:018) M=OK (Y:016,M:3C2) C=OK (M:010)
   PIGBk=OK (389))
```

Check2

Check3

Check4   Check4

Check5

Check6

Check7

CDR SENSOR=OK

Check8
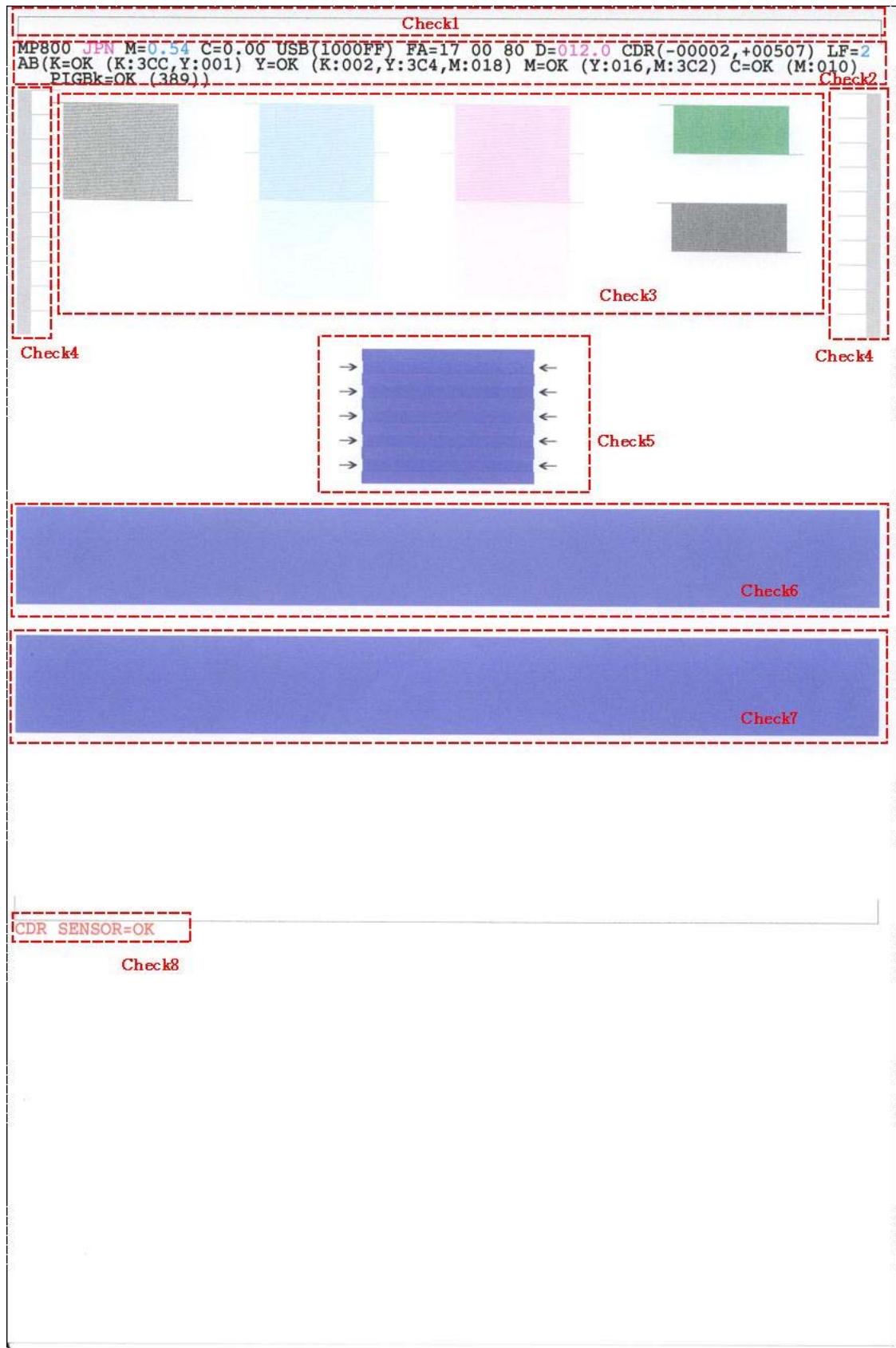
(2) EEPROM information print

<How to read EEPROM information print>

Print sample:

MP800 JPN V1.04 IF(USB2=1) D=004.5 ST=2005/06/10-18:30

ER(ER0=1000 ER1=5100) LPT=2005/06/28-09:09

PC(M=002 R=000 T=001 D=009 C=009)

CLT(BK=2005/06/28-18:30 CL=2005/06/28-18:30)

CH=00001 CT(PBK=040 BK=020 Y=109 M=012 C=113) IS(PBK=1 BK=0 Y=1 M=1 C=2)

P_ON(S=00009) A_REG=1 M_REG=0

UR(A(BKoe)=000 B(Coe)=000 C(Moe)=000 D(SCoe)=000 E(SMoe)=000 F(PBKoe)=000

G(CLbi)=-02 H(SCLbi)=-03 I(C-SC)=+01 J(M-SM)=+01 K(BK-CL)=+01

L(BKbiPP)=-03 M(CLbiPP)=-02 N(SCLbiPP)=-03 O(NZctr)=000 P(NZedge)=000

WP=0024 CDIN(LG=001 PB=000 OPB=000) BTIN=0 MSD(015)

TPAGE=00047 (TTL=00047COPY=00025)

PAGE(All=00038 PP=00035 HR+MP=00003 PR+SP+SG =00000 GP =00000 PC=00000 EV=00000)

UCPAGE(All=00083 PP=00035 HR+MP=00003 PR+SP+SG =00000 GP =00000 PC=00000 EV=00000)

BPPAGE(All=00083 BSSP=00003 PC=00000)

CDPAGE(All=000) EDGE=00083 L=00000 BTPAGE=0000 CDR=00000

CDRP=(-00005,-00029) CDRS=(000) LF=2 LM=(ASF_R:00 UT_F:00 UT_R:00)

<Direct>

LG=01 Japanese SC=000 PrnB=000 Seal=000 CDI=004 CDP=006

CDD-PR(L=003 2L=002 PC=000 A4=000) CDD-SP(L=003 2L=002 PC=000 A4=000)

CDD-MP(L=003 2L=002 PC=000 A4=000) DCD-PP(L=003 2L=002 PC=000 A4=000)

DCD-FPP(L=003 2L=002 PC=000 A4=000) DCD-MPP(L=003 2L=002 PC=000 A4=000)

<Scanner>

SC=00026 SC-dpi(75=00000 150=00000 300=00001 600=00025 1200=00000 2400=00000 4800=00000)

SG(GY=00000 CL=00000) FSC=00003

<Copy>

MCASF(PP=00001 SP+PR+GP=00000 OTH=00000)

MCUF(PP=00001 SP+PR+GP=00000 OTH=00000)

CCASF(PP=00009 FR+MP=00000 PR+SP+SG=00006 GP=00000 PC=00000)

CCUT(PP=00004 FR+MP=00000 PR+SP+SG=00003 GP=00001 PC=00001)

Head TempBK=31.5 Head TempC=29.0 Env Temp=27.0 FF(80 00 17)

HDEEPROM

V0000 SN=0000-033C

LN(00000 00000 00001 00003 00001 00017 00015) ID=09

IL=(PBK=000 BK=000 Y=001 M=001 M2=001 C=000 C2=001)

<SCAN ERROR HISTORY>

5020 0000

Printed items:

1. Model name   2. ROM version   3. Connected I/F (USB2)   4. Waste ink amount   5. Installation date

6. Operator call/service call error record   7. Last printing time

8. Purging count (manual/deep cleaning/timer/dot count/ink tank replacement)   9. Cleaning time (BK/CL)

10. Print head replacement count   11. Ink tank replacement count (PBK/BK/Y/M/C)   12. Ink status (PBK/BK/Y/M/C)

13. Power-on count (soft)   14. Automatic print head alignment by user   15. Manual print head alignment by user

16. User print head alignment values   17. Wiping count   18. Camera Direct Print-supported device connection record   19. Bluetooth-supported device connection record

20. Longest period where printing stops   21. Total print pages (total, copy pages)

22. ASF feed pages (total, plain paper, High Resolution Paper & Matte Photo Paper, Photo Paper Pro & Photo Paper Plus

Glossy & Photo Paper Plus Semi-gloss, Glossy Photo Paper, postcard, Envelope)

23. U-turn cassette feed pages (total, plain paper, High Resolution Paper & Matte Photo Paper, Photo Paper Pro & Photo Paper Plus Glossy & Photo Paper Plus Semi-gloss, Glossy Photo Paper, postcard, envelope)

24. Auto duplex print pages (total, Photo Paper Plus Double Sided, postcard)

25. Camera Direct print pages (total)   26. Borderless print pages (total)   27. 4x6 print pages   28. Print pages via Bluetooth communication   29. Number of CDs and DVDs printed

30. CD / DVD print position adjustment value   31. CD / DVD sensor correction value   32. LF correction   33. Left margin correction value (ASF back side, U-turn front side, U-turn back side)

<Direct>

34. Language   35. Business card & Credit card sized paper pages fed   36. Print Beam feed pages   37. Sticker sheets fed

38. Memory card use count   39. Total Card Direct print pages

40. Card Direct print pages: Photo Paper Pro (4 x 6, 5 x 7, Japanese post card, A4/Letter)

41. Card Direct print pages: Photo Paper Plus Glossy (4 x 6, 5 x 7, Japanese post card, A4/Letter)

42. Card Direct print pages: Matte Photo Paper (4 x 6, 5 x 7, Japanese post card, A4/Letter)

43. Camera Direct print pages: Photo Paper (4 x 6, 5 x 7, Japanese post card, A4/Letter)

44. Camera Direct print pages: Photo Paper Plus Glossy (4 x 6, 5 x 7, Japanese post card, A4/Letter)

45. Camera Direct print pages: Matte Photo Paper (4 x 6, 5 x 7, Japanese post card, A4/Letter)

<Scanner>

46. Total scan count   47. Scan count by scanning resolution (75, 150, 300, 600, 1200, 2400, 4800 dpi)

48. Scan count by scanning gradation (grayscale, color)

49. Film scan count

<Copy>

50. Monochrome copy pages fed via the ASF (plain paper, High Resolution Paper & Matte Photo Paper & Glossy Photo Paper, other)

51. Monochrome copy pages fed via the U-turn cassette (plain paper, High Resolution Paper & Matte Photo Paper & Glossy Photo Paper, other)

52. Color copy pages fed via the ASF (plain paper, High Resolution Paper & Matte Photo Paper, Photo Paper Pro & Photo Paper Plus Glossy & Photo Paper Plus Semi-gloss, Glossy Photo Paper, postcard)

53. Color copy pages fed via the U-turn cassette (plain paper, High Resolution Paper & Matte Photo Paper, Photo Paper Pro & Photo Paper Plus Glossy & Photo Paper Plus Semi-gloss, Glossy Photo Paper, postcard)

54. Print head temperature (BK/CL)   55. Inside temperature   56. Line inspection information

HDEEPROM

57. Version   58. Serial number

59. Lot number   60. Print head ID

61. Ink ejection level (PBK, BK, Y, M, M2, C, C2)

<Scan error history>

62. The last 2 errors

4. MACHINE TRANSPORTATION

This section describes the procedures for transporting the machine for returning after repair, etc.

1) In the service mode, press the ON/OFF button to finish the mode, and confirm that the paper lifting plate of the sheet feed unit is raised.

2) Keep the print head and ink tanks installed in the carriage.
   [See Caution 1 below.]

3) Turn off the machine to securely lock the carriage in the home position. (When the machine is turned off, the carriage is automatically locked in place.)
   [See Caution 2 below.]

4) Slide the scanner lock switch to lock the scanner.

Caution:
(1) If the print head is removed from the machine and left alone by itself, ink (the pigment-based black ink in particular) is likely to dry. For this reason, keep the print head installed in the machine even during transportation.
(2) Securely lock the carriage in the home position, to prevent the carriage from moving and applying stress to the carriage flexible cable, or causing ink leakage, during transportation.

Memo:
If the print head must be removed from the machine and transported alone, attach the protective cap (used when the packing was opened) to the print head (to protect the print head face from damage due to shocks).

<Part 1: 4. MACHINE TRANSPORTATION>

Part 2

TECHNICAL REFERENCE

←→

1. NEW TECHNOLOGIES

(1) New ink tank system (PGI-5, CLI-8)

An LED is installed in each ink tank.

By the LED indication, wrong installation of the ink tanks will be prevented, and the remaining ink level can be visually recognized with the ink tanks seated in the carriage.

The combination of the new pigment-based black ink with higher resistance against bleeding or marker pens and the new dye-based inks with higher photo quality and weather resistance makes the new ink system strong in both photo and text printing.

(2) Super-photo quality printing

By the FINE technologies, 1 pl of ultra-fine ink droplet is adopted. The MP800 provides excellent super-photo print quality without graininess at the maximum resolution of 9,600 dpi x 2,400 dpi[*1], which is equal to that of a 6-color machine.

*1: Printing at the minimum distance of 1/9600 inch between the dots.

(3) High-speed print and copy

Approx. 36 sec. in 4 x 6 borderless printing (standard mode, Photo Paper Plus Glossy, full page, SCID No.2)
For reference, 30 ppm in monochrome printing and 24 ppm in color printing at the highest print speed.

(4) New functionality in copy and Direct Printing

- Plain paper is now usable in Camera Direct Printing from a digital camera or digital video camera, if both support PictBridge. (Settings button)
- File numbers, shooting date, and shooting data (Exif) can be printed on the images. (Memory card mode)
- Optimization of photos taken by a mobile phone:

    Minimizes jaggies in printing a low-resolution photo taken by a mobile phone. (Wireless print settings menu, or memory card mode)
- Slide show:

    To the Single-photo print menu, the slide show function has been added to display photos from the memory card one by one automatically. (Memory card mode)
- Red-Eye correction:

    Selects red area from an image, and detects and corrects the red eye automatically. (Memory card mode)
- Face brightener:

    Perceives a person's face automatically and adjusts its brightness. (Memory card mode, or photo/film mode)
- Index printing:

    Printing like a 35 mm negative film is possible. (Memory card mode)
- Sepia tone or illustration-simulated effects:

    In Card Direct printing, the function to add a sepia tone to the photo or to make the photo look like a illustration has been added. (Memory card mode)
- CD / DVD printing:

    Direct printing from a memory card on a CD or DVD is available. (Memory card mode)
- CD / DVD label copy:

    A CD or DVD label can be copied directly to another CD or DVD. (Copy mode)
- 4-on-1 copy:

    Four documents can be copied on a single sheet by automatically reducing the original documents. (Copy mode)

(5) Friendly design

Offers friendliness, robustness and looks which do not overwhelm by its size as the traditional MFP does.

(6) High-definition 3.5 color STN LCD

The 3.5-inch color STN LCD offers higher visibility than the conventional models to improve usability (320 x 240 pixels, approx. 65,000 colors).

(7) 1,200 x 2,400 dpi high-resolution CCD scanner and FAU supported

High-definition film scanning of color negative film, black and white negative film, color positive film, and mount film is possible using FAU (Film Adapter Unit). (Continuous scanning: 6 sleeves, or 4 slides)

(8) Printing via Bluetooth communication (optional)

The Bluetooth Unit BU-20 is available as an option.

Adopting a compatible USB adapter, the BU-20, when attached to the machine, enables wireless printing from a Bluetooth-compliant computer or mobile phone.

2. CLEANING MODE AND AMOUNT OF INK PURGED

To prevent printing problems due to bubbles, dust, or ink clogging, print head cleaning is performed before the start of printing (when the cleaning flag is on), except in the following cases:

- Cleaning on arrival: Performed when the scanning unit (printer cover) is closed.
- Manual cleaning / deep cleaning: Performed manually.

<Cleaning mode list>

Black: Pigment-based black

Color: Dye-based black, cyan, magenta, yellow

Condition	Details	Amount of ink used (g) (in the normal temperature/humidity environment)	Est. required time (sec.) (not including the time of opening the caps)
On arrival of the machine (All in sequence)	First to third cleaning after shipped from the plant[*1].	0.57 (Black) 2.25 (Color)	100
Dot count cleaning (Black)	When the specified number of dots are printed since the previous Black cleaning.	0.20 (Black)	35 (Black)
Timer cleaning - 0[*2] (Black only)	If 24 to 60 hours have elapsed since the previous Black cleaning till the start of the next printing.	0.20 (Black)	35 (Black)
Timer cleaning - 1 (Black only)	If 60 to 96 hours have elapsed since the previous Black cleaning till the start of the next printing.		
Timer cleaning - 2 (Black only)	If 96 to 120 hours have elapsed since the previous Black cleaning till the start of the next printing.		
Timer cleaning - 3[*3] (Black/Color)	If 120 to 336 hours have elapsed since the previous Black/Color cleaning till the start of the next printing.	0.20 (Black) 0.66 (Color)	35 (Black) 40 (Color)
Timer cleaning - 4 (All in sequence)	If 336 to 504 hours have elapsed since the previous Black/Color cleaning till the start of the next printing.	0.57 (Black) 1.06 (Color)	80
Timer cleaning - 5 (All in sequence)	If 504 to 720 hours have elapsed since the previous Black/Color cleaning till the start of the next printing.		80
Timer cleaning - 6 (All in sequence)	If 720 to 1,080 hours have elapsed since the previous Black/Color cleaning till the start of the next printing.		80
Timer cleaning - 7 (All in sequence)	If 1,080 to 2,160 hours have elapsed since the previous Black/Color cleaning till the start of the next printing.	1.27 (Black) 1.06 (Color)	85
Timer cleaning - 8 (All in sequence)	If 2,160 to 4,320 hours have elapsed since the previous Black/Color cleaning till the start of the next printing.	1.95 (Black) 1.06 (Color)	90
Timer cleaning - 9 (All in sequence)	If 4,320 to 8,640 hours have elapsed since the previous Black/Color cleaning till the start of the next printing.	1.95 (Black) 1.06 (Color)	90
Timer cleaning - 10 (All in sequence)	If 8,640 or longer hours have elapsed since the previous Black/Color cleaning till the start of the next printing.		90
At print head replacement	When the print head is removed and installed.	0.57 (Black) 2.25 (Color)	100

(All in sequence)			
At ink tank replacement*4 (Black/Color/All in sequence)	When an ink tank is replaced (without the print head removal or re-installation)	0.38 (Black) 1.06 (Color)	80 (All in sequence) 40 (Black) 65 (Color)
Manual cleaning (Black/Color/All at the same time)	- Via the operation panel (All at the same time only) - Via the MP driver (Selectable from Black, Color, or All at the same time)	0.20 (Black) 0.65 (Color)	45 (All at the same time) 35 (Black) 40 (Color)
Deep cleaning (Black/Color/All at the same time)	Via the MP driver (Selectable from Black, Color, or All at the same time)	1.95 (Black) 1.06 (Color)	90 (All at the same time) 45 (Black) 65 (Color)
If the print head has not been capped before power-on (All in sequence)		0.38 (Black) 1.06 (Color)	80 (All in sequence)

*1: The counter for the on-arrival cleaning is checked at opening and closing of the scanning unit (the first opening and closing only), before start of printing, at dot-count cleaning (at paper ejection), and at manual cleaning, and the on-arrival cleaning is performed according to the counter value. After each on-arrival cleaning, the counter value is reduced by 1.

When the counter value is 3, 2, or 1: On-arrival cleaning is performed.

When the counter value is 0: On-arrival cleaning is not performed.

*2: When 24 to 60 hours have elapsed since the previous Black cleaning, timer cleaning - 0 is performed. However, this cleaning will be conducted up to 5 times from the printer installation, and no further timer cleaning - 0 will be performed.

*3: The period of time since the previous cleaning is counted by Black and Color separately. For this reason, the cleaning mode may differ according to Black or Color.

*4: When only the black ink tank is replaced, Black cleaning is performed. One of the color ink tanks is replaced, Color cleaning is performed. Both the black and color ink tanks are replaced, All-at-the-same-time cleaning is performed.

← <Part 2: 2. CLEANING MODE AND AMOUNT OF INK PURGED> →

3. PRINT MODE

(cyan)	Default setting
(light green)	Selectable in the printer driver Main tab
(yellow)	Selectable after clicking Custom in the Main tab

Ink used		
	PigBk:	PGI-5BK
	C:	CLI-8C (large droplet)
	M:	CLI-8M (large droplet)
	Y:	CLI-8Y
	k:	CLI-8BK
	c:	CLI-8C (small droplet)
	m:	CLI-8M (small droplet)

Print control		
	Bi:	Bi-directional
	Uni:	Uni-directional

3-1. Normal Color Printing via Computer

Paper type (Canon specialty paper)	MP driver Custom setting	5	4	3	2	1
Plain paper	Print quality Resolution HxV (dpi) Print control Ink used	Custom 300×300 1 pass, Bi PigBk/C/M/Y	Fast 300×300 1 pass, Bi PigBk/C/M/Y	Standard 1200×1200 1 pass, Bi PigBk/C/M/Y	High 1200×2400 4 passes, Bi PigBk/C/M/Y/c/m	
Photo Paper Pro (PR-101)	Print quality Resolution HxV (dpi) Print control Ink used			Standard 1200×2400 4 passes, Bi C/M/Y/c/m/k	High 1200×2400 6 passes, Bi C/M/Y/c/m/k	Custom 9600×2400 16 passes, Bi C/M/Y/c/m/k
Photo Paper Plus Glossy Photo Paper Plus Semi-gloss (PP-101 / SG-101)	Print quality Resolution HxV (dpi) Print control Ink used		Fast 1200×2400 3 passes, Bi C/M/Y/c/m/k	Standard 1200×2400 4 passes, Bi C/M/Y/c/m/k	High 1200×2400 6 passes, Uni C/M/Y/c/m/k	
Photo Paper Plus Double Sided (PP-101D)	Print quality Resolution HxV (dpi) Print control Ink used			Standard 1200×2400 4 passes, Bi C/M/Y/c/m/k	High 1200×2400 6 passes, Bi C/M/Y/c/m/k	
Matte Photo Paper (MP-101)	Print quality Resolution HxV (dpi) Print control Ink used			Standard 1200×2400 4 passes, Bi C/M/Y/c/m/k	High 1200×2400 6 passes, Bi C/M/Y/c/m/k	
Glossy Photo Paper (GP-401/501)	Print quality Resolution HxV (dpi) Print control Ink used			Standard 1200×2400 4 passes, Bi C/M/Y/c/m/k	High 1200×2400 6 passes, Bi C/M/Y/c/m/k	
High Resolution Paper (HR-101)	Print quality Resolution HxV (dpi) Print control Ink used			Standard 1200×2400 4 passes, Bi C/M/Y/c/m/k	High 1200×2400 6 passes, Bi C/M/Y/c/m/k	
Envelope	Print quality Resolution HxV (dpi) Print control Ink used			Standard 1200×1200 2 passes, Bi PigBk/C/M/Y/k	High 1200×1200 4 passes, Bi PigBk/C/M/Y/k	
CD-R / DVD (recommended)	Print quality Resolution HxV (dpi) Print control Ink used			Fast 1200×2400 4 passes, Bi C/M/Y/c/m/k	Standard 1200×2400 6 passes, Bi C/M/Y/c/m/k	High 1200×2400 8 passes, Bi C/M/Y/c/m/k
CD-R / DVD (others)	Print quality Resolution HxV (dpi) Print control Ink used			Fast 1200×2400 4 passes, Bi C/M/Y/c/m/k	Standard 1200×2400 6 passes, Bi C/M/Y/c/m/k	High 1200×2400 8 passes, Bi C/M/Y/c/m/k
T-Shirt transfer (TR-301)	Print quality Resolution HxV (dpi) Print control Ink used			High 1200×1200 6 passes, Bi C/M/Y/k		
Transparency (CF-102)	Print quality Resolution HxV (dpi) Print control Ink used			Standard 1200×1200 4 passes, Bi PigBk/C/M/Y/k	High 1200×1200 6 passes, Bi PigBk/C/M/Y/k	
Other Photo Paper	Print quality Resolution HxV (dpi) Print control Ink used			Standard 1200×2400 8 passes, Bi C/M/Y/c/m/k		

3-2. Normal Grayscale Printing via Computer

Paper type (Canon specialty paper)	MP driver Custom setting	5	4	3	2	1
Plain Paper	Print quality Resolution HxV (dpi) Print control Ink used	Custom 300×300 1 pass, Bi PigBk	Fast 300×300 1 pass, Bi PigBk	Standard 600×600 1 pass, Bi PigBk	High 600×600 4 passes, Bi PigBk	
Envelope	Print quality Resolution HxV (dpi) Print control Ink used			Standard 600×600 2 passes, Uni PigBk	High 600×600 4 passes, Uni PigBk	

3-3. Borderless Printing via Computer

MP driver Custom setting / Paper type (Canon specialty paper)		5	4	3	2	1
Plain paper	Print quality / Resolution HxV (dpi) / Print control / Ink used			Standard / 1200×1200 / 2 passes, Bi / C/M/Y/k		
Photo Paper Pro (PR-101)	Print quality / Resolution HxV (dpi) / Print control / Ink used			Standard / 1200×2400 / 4 passes, Bi / C/M/Y/c/m/k	High / 1200×2400 / 6 passes, Bi / C/M/Y/c/m/k	Custom / 9600×2400 / 16 passes, Bi / C/M/Y/c/m/k
Photo Paper Plus Glossy / Photo Paper Plus Semi-gloss (PP-101/SG-101)	Print quality / Resolution HxV (dpi) / Print control / Ink used		Fast / 1200×2400 / 3 passes, Bi / C/M/Y/c/m/k	Standard / 1200×2400 / 4 passes, Bi / C/M/Y/c/m/k	High / 1200×2400 / 6 passes, Bi / C/M/Y/c/m/k	
Glossy Photo Paper (GP-401/501)	Print quality / Resolution HxV (dpi) / Print control / Ink used			Standard / 1200×2400 / 4 passes, Bi / C/M/Y/c/m/k	High / 1200×2400 / 6 passes, Bi / C/M/Y/c/m/k	
Matte Photo Paper (MP-101)	Print quality / Resolution HxV (dpi) / Print control / Ink used			Standard / 1200×2400 / 4 passes, Bi / C/M/Y/c/m/k	High / 1200×2400 / 6 passes, Bi / C/M/Y/c/m/k	
Other Photo Paper	Print quality / Resolution HxV (dpi) / Print control / Ink used			Standard / 1200×2400 / 8 passes, Bi / C/M/Y/c/m/k		

3-4. Duplex Printing via Computer

MP driver Custom setting / Paper type (Canon specialty paper)		5	4	3	2	1
Plain paper	Print quality / Resolution HxV (dpi) / Print control / Ink used	Custom / 300×300 / 1 pass, Bi / PigBk/C/M/Y	Fast / 300×300 / 1 pass, Bi / PigBk/C/M/Y	Standard / 1200×1200 / 1 pass, Bi / PigBk/C/M/Y	High / 1200×2400 / 4 passes, Bi / PigBk/C/M/Y/c/m	
Plain paper, borderless printing	Print quality / Resolution HxV (dpi) / Print control / Ink used			Standard / 1200×1200 / 2 passes, Bi / C/M/Y/k		
Photo Paper Plus Glossy Double Sided (PP-101D)	Print quality / Resolution HxV (dpi) / Print control / Ink used			Standard / 1200×2400 / 4 passes, Bi / C/M/Y/c/m/k	High / 1200×2400 / 6 passes, Bi / C/M/Y/c/m/k	

3-5. Camera Direct Printing

MP driver Custom setting / Paper type (Canon specialty paper)		5	4	3	2	1	Camera Direct print
Plain paper, Camera Direct printing	Print quality / Resolution HxV (dpi) / Print control / Ink used						1200×1200 / 4 passes, Bi / PigBK/C/M/Y
Photo Paper Pro (PR-101)	Print quality / Resolution HxV (dpi) / Print control / Ink used				1200×2400 / 6 passes, Bi / C/M/Y/c/m/k		
Photo Paper Plus Glossy / Photo Paper Plus Semi-gloss (PP-101/SG-101)	Print quality / Resolution HxV (dpi) / Print control / Ink used				1200×2400 / 6 passes, Bi / C/M/Y/c/m/k		

3-6. Card Direct / Photo Direct / Wireless Printing

Print quality in wireless printing is fixed to Standard.

(Selectable paper types in wireless printing: Plain paper, Photo Paper Pro, Photo Paper Plus Glossy, Matte Photo Paper, and Glossy Photo Paper)

MP driver Custom setting / Paper type (Canon specialty paper)		5 Fast	4	3	2	1 Fine	Special mode
Plain paper	Print quality / Resolution HxV (dpi) / Print control / Ink used				Standard / 1200×2400 / 4 passes, Bi / PigBk/C/M/Y/c/m		High / 1200×2400 / 6 passes, Bi / PigBk/C/M/Y/c/m
Glossy Photo Paper (GP-401/501)	Print quality / Resolution HxV (dpi) / Print control / Ink used			Standard / 1200×2400 / 4 passes, Bi / C/M/Y/c/m/k	High / 1200×2400 / 6 passes, Bi / C/M/Y/c/m/k		
Photo Paper Pro (PR-101)	Print quality / Resolution HxV (dpi) / Print control / Ink used			Standard / 1200×2400 / 4 passes, Bi / C/M/Y/c/m/k	High / 1200×2400 / 6 passes, Bi / C/M/Y/c/m/k		
Matte Photo Paper (MP-101)	Print quality / Resolution HxV (dpi) / Print control / Ink used			Standard / 1200×2400 / 4 passes, Bi / C/M/Y/c/m/k	High / 1200×2400 / 6 passes, Bi / C/M/Y/c/m/k		
Photo Paper Plus Glossy / Photo Paper Plus Semi-gloss (PP-101/SG-101)	Print quality / Resolution HxV (dpi) / Print control / Ink used			Standard / 1200×2400 / 4 passes, Bi / C/M/Y/c/m/k	High / 1200×2400 / 6 passes, Bi / C/M/Y/c/m/k		
CD-R / DVD (recommended)	Print quality / Resolution HxV (dpi) / Print control / Ink used				Standard / 1200×2400 / 6 passes, Bi / C/M/Y/c/m/k		
CD-R / DVD (others)	Print quality / Resolution HxV (dpi) / Print control / Ink used			Fast / 1200×2400 / 4 passes, Bi / C/M/Y/c/m/k			

3-7. Copying

MP driver Custom setting / Paper type (Canon specialty paper)		5 Fast	4	3	2	1 Fine	Special mode
Plain paper	Print quality	Fast		Standard	High		
	Resolution H×V (dpi)	300×300		600×600	600×600		
Single sided	Print control	1 pass, Bi		1 pass, Bi	4 passes, Bi		
Black	Ink used	PigBk		PigBk	PigBk		
Plain paper	Print quality	Fast		Standard	High		
	Resolution H×V (dpi)	300×300		1200×1200	1200×2400		
Single sided	Print control	1 pass, Bi		1 pass, Bi	4 passes, Bi		
Color	Ink used	PigBk/C/M/Y		PigBk/C/M/Y	PigBk/C/M/Y/c/m		
Glossy Photo Paper	Print quality			Standard	High		
(GP-401/501)	Resolution H×V (dpi)			1200×2400	1200×2400		
Single sided	Print control			4 passes, Bi	6 passes, Bi		
Black/Color	Ink used			C/M/Y/c/m/k	C/M/Y/c/m/k		
Photo Paper Pro	Print quality			Standard			High
(PR-101)	Resolution H×V (dpi)			1200×2400			1200×2400
Single sided	Print control			4 passes, Bi			6 passes, Bi
Black/Color	Ink used			C/M/Y/c/m/k			C/M/Y/c/m/k
Matte Photo Paper	Print quality			Standard	High		
(MP-101)	Resolution H×V (dpi)			1200×2400	1200×2400		
Single sided	Print control			4 passes, Bi	6 passes, Bi		
Black/Color	Ink used			C/M/Y/c/m/k	C/M/Y/c/m/k		
Photo Paper Plus Glossy	Print quality			Standard	High		
Photo Paper Plus Semi-gloss	Resolution H×V (dpi)			1200×2400	1200×2400		
(PP-101/SG-101)	Print control			4 passes, Bi	6 passes, Bi		
Single sided, Black/Color	Ink used			C/M/Y/c/m/k	C/M/Y/c/m/k		
CD-R / DVD (recommended)	Print quality				Standard		
	Resolution H×V (dpi)				1200×2400		
Single sided	Print control				6 passes, Bi		
Black/Color	Ink used				C/M/Y/c/m/k		
CD-R / DVD (others)	Print quality			Fast			
	Resolution H×V (dpi)			1200×2400			
Single sided	Print control			4 passes, Bi			
Black/Color	Ink used			C/M/Y/c/m/k			
Plain paper	Print quality	Fast		Standard	High		
	Resolution H×V (dpi)	300×300		1200×1200	1200×2400		
Double Sided	Print control	1 pass, Bi		1 pass, Bi	4 passes, Bi		
Black/Color/Photo	Ink used	PigBk/C/M/Y		PigBk/C/M/Y	PigBk/C/M/Y/c/m		

4. SCAN MODE

MP800　Scan mode

Scan mode				Zoom (%)	CCD Sensor Type (600 or 2400dpi)	Hardware Resolution CCD (dpi)	Hardware Resolution Motor (dpi)	Output resolution (dpi)
COPY	Direct / Memory	Mono	FAST	25	600	600	150	300×300
				26-50			150	
				51-100			300	
				101-200			600	
				201-400			1200	
			STANDARD	25	600	600	150	600×600
				26-50			300	
				51-100			600	
				101-200			1200	
				201-400			2400	300×600
			HIGH	25	600	600	150	600×600
				26-50			300	
				51-100			600	
				101-200			1200	
				201-400			2400	
		Color	FAST	25	600	600	150	300×300
				26-50			150	
				51-100			300	
				101-200			600	
				201-400			1200	
			STANDARD	25	600	600	150	600×600
				26-50			300	
				51-100			600	
				101-200			1200	
				201-400			2400	
			HIGH	25	600	600	150	600×600
				26-50			300	
				51-100			600	
				101-200			1200	
				201-400			2400	
COPY (Printed Photo)	Memory		Pre Scan		600	300	150	75×75
		Mono	FAST		600	300	300	300×300
			STANDARD			600	600	600×600
			HIGH					
		Color	FAST		600	300	300	300×300
			STANDARD			600	600	600×600
			HIGH					
COPY (Film)	Memory		Pre Scan		2400	600	150	150×150
		Mono	< 2L size		2400	1200	1200	600×600
			>= 2L size			2400	2400	
		Color	< 2L size		2400	1200	1200	600×600
			>= 2L size			2400	2400	
SCAN		Pre Scan		75dpi	600	300	150	75×75
	USB2.0/USB1.1 Color/Gray			75	600	300	150	75×75
				~150			150	150×150
				~300			300	300×300
				~600		600	600	600×600
				~1200	2400	1200	1200	1200×1200
				~2400		2400	2400	2400×2400
				~3200			4800	2400×4800
SCAN(Film)		Pre Scan		150dpi	2400	600	150	150×150
	USB2.0/USB1.1 Color/Gray			150	2400	600	150	150×150
				~300			300	300×300
				~600			600	600×600
				~1200		1200	1200	1200×1200
				~2400		2400	2400	2400×2400
				~4800			4800	2400×4800

<Part 2: 4. SCAN MODE>

5. FAQ (Problems Specific to the MP800 and Corrective Actions)

No.	*	Function	Phenomenon	Condition	Cause	Corrective action	Possible call or complaint
1	B	Print results	Skewed paper feeding	- Paper feeding from the cassette, Photo Paper Plus Double Sided, 5 x 7 size	Due to its mechanism, contact of the PF pinch rollers to the 5 x 7 size paper is uneven, which is likely to cause skewed paper feeding.	Change the paper feeding method from the cassette to the auto sheet feeder.	- Paper feeds at an angle. - A margin appears on printouts.
2	B	Paper feed	Improper paper feeding: - Multi-feeding - Skewed paper feeding - Paper jam	- Paper feeding from the ASF - Plain paper - Highest print speed (Custom setting to 5) - In the high temperature and high humidity environment - In the low temperature and low humidity environment - With the maximum amount of paper set (13 mm)	In the high temperature and high humidity environment, paper becomes wavy; in the low temperature and low humidity environment, paper curls significantly. When the maximum amount of paper is set in the ASF, and if the paper-return tab fits in a wave or curl of the paper, the tab slips and does not catch paper properly, causing paper feed problems.	- Reduce the amount of paper set in the ASF to half (approx. 5 mm high).	- Multiple sheets of paper feed at the same time. - Paper feeds at an angle. - A paper jam occurs.
3	C	Print results	Skewed paper feeding (at the level of +/- 1%)	- Paper feeding from the ASF - Credit Card size	Since coaxial tolerance between the pinch roller and the LF roller, which determines the paper feed alignment, is 0.2mm, skewed paper feeding can occur. However, according to the field data of current models, the skewness level caused by the coaxial tolerance of 0.2mm is within the criteria of +/- 1%, thus the phenomenon is left as is.	- Align the paper guide to the paper edge tighter than usual.	- Paper feeds at an angle. - A margin appears on printouts.
4	A	Print results	Soiling on the back side of paper (lines or streaks parallel to the paper feed direction)	- After continuous borderless printing of small sized paper (such as 4 x 6), when a larger sized paper (such as A4) is printed. - With Photo Paper Plus Double Sided or postcards, the phenomenon is likely to be noticeable and to be complained of by users, as printing is performed on both sides of such paper.	In borderless printing, printing is performed to the size slightly larger than the paper size, and ink off the paper is absorbed by the platen's ink absorber. Absorbed ink may attach to the platen rib(s) after several dozen sheets are printed, causing soiling at the leading edge of paper or on the back side of paper.	1. Perform Bottom plate cleaning (from the MP driver or via the operation panel) up to 3 times*1. 2. If soiling on the paper still remains after 3 times of Bottom plate cleaning, wipe the platen rib(s) and their surroundings with a cotton swab.	- Paper gets smeared. - The back side of paper gets smeared.
			Soiling on paper in automatic duplex printing (lines or streaks	- Automatic duplex printing (Photo Paper Plus Double Sided, postcards, plain paper)	On the rib(s) inside the sheet feed unit used for duplex printing, ink mist	**Temporary operational solution:** Cancel automatic	- Paper gets smeared. - The back side of paper gets

| No.	Rank						
5	B	Print results	perpendicular to the paper feed direction)		may accumulate, smearing paper.	duplex printing, and manually print each side of paper. **Cleaning by user:** 1. Perform Bottom plate cleaning (from the MP driver or via the operation panel) up to 3 times[*1]. 2. If soiling on the paper still remains after 3 times of Bottom plate cleaning, wipe the platen rib(s) and their surroundings with a cotton swab. If the phenomenon persists after conducting 1 and 2, servicing is required. **Service:** Wipe any soiling or dirt off from the sheet feed unit and the bottom case unit ribs[*2].	smeared. - Even after Bottom plate cleaning was performed, and the platen ribs were cleaned with cotton swab, paper gets smeared.
6	C	Print results	Scratches on paper	- PP-101D, PP-101, PR-101, SG-101, etc. - Paper feeding from the cassette	Scratches on the PF return lever due to paper feeding from the cassette, and duplex printing path.	- Change the paper feeding method from the cassette to the auto sheet feeder. - If automatic duplex printing is performed, cancel it, and, by setting only a single sheet of paper in the auto sheet feeder, manually print each side of paper.	- Paper is scratched. - Marks appear on printed paper.
				- PP-101D, PP-101, PR-101, SG-101, etc. - Paper feeding from the ASF - Multiple number of sheets loaded	When multiple sheets of paper are set, the back side of paper being picked up scratches the front side of paper beneath (especially where the paper feed rollers contact when picking up the paper).	Set only a single sheet of paper in the auto sheet feeder.	
7	C	Print results	Soiling on paper	The machine has been used for a long period of time with the ASF cover closed before printing is performed using the ASF.	Due to ink mist attached to the ASF sub-pick-up rollers. If printing is done from the cassette with the ASF cover closed, ink mist is kept inside the machine, attaching to the ASF sub-pick-up rollers.	Clean the ASF sub-rollers (see *3 for details).	

					Since the sub-rollers usually do not contact the paper, ink mist can easily accumulate, especially during printing on small-sized paper which never contacts the sub-rollers.		
8	B	Print results	Skewed paper feeding	- SG-101 - Paper feeding from the ASF - 10 sheets (max.) set in the ASF	When 10 sheets of paper are set in the ASF, and if they warp significantly, the warping portions of paper get over the cover guide, not being aligned along the guide properly.	- Straighten the paper. - Set 5 or less sheets of paper in the ASF.	- Paper feeds at an angle. - A margin appears on printouts.
9	B	Print results	Uneven printing at the trailing edge of paper	- In the low temperature and low humidity environment	Due to decrease of the friction coefficient and inaccurate print head alignment.	- Perform Manual print head alignment. - Perform Bottom plate cleaning.	- Uneven printing at the bottom of the paper.
10	B	Print results	Print smeared	- When the inner cover is not completely closed. - High-density image printing	When printing on paper is done with the inner cover open, the print immediately after ink is ejected on paper is scratched by the bottom of the inner cover, resulting in smeared print.	Close the inner cover completely.	- Printing gets smeared.
11	A	Image scanning	Spots on a scanned image	- Glossy photo (original) - In the high humidity environment	When a glossy photo is strongly pressed on the platen glass, the photo will stick to the glass, and the stuck points are scanned as spots.	- Do not strongly press the photo on the platen glass. - Clean the platen glass (to eliminate any moisture).	- Spots appear on the scanned image, though there is no such spots on the original document.
12	C	Display on the LCD	Improper trimming in Layout print (orientation difference of an image between the LCD and a printout)	- Card Direct printing - Photos taken with a DoCoMo mobile phone	For photos in general, both the thumbnail and the original image are in landscape. However, when original images are in portrait while thumbnails are in landscape, the trimming frame shifts from the correct position in some instances.	The phenomenon is left as is.	- Print result differs from what is displayed on the LCD.

13	A	Image scanning	Improper area of cropping, or skewed scanning	- Scanning using MP Navigator
				- MP Navigator settings:
				  Document type:
				    Black and white document, or color document
				  Document size:
				    Auto detect
					Due to a bug in MP Navigator 2.0.
					Since the automatic cropping process is incorrect, improper correction of skewed scanning is done depending on a document, resulting in the skewed scanning.
						- An information sheet regarding the phenomenon is packed with the machine in early production.
						- MP Navigator will be upgraded on a running-change basis.
						- If the phenomenon occurs, cancel "auto detect" and select the paper
							- An image is scanned at an angle.
							- Some portions of an image is not scanned.

|					size (the full paper size). Trim margins (white area along the edges of the scanned image), if any.	

*1: Change the paper in each Bottom plate cleaning. The cleaning can end when paper does not get any soiling.

*2: Locations to clean in servicing when soiling on paper in automatic duplex printing persists:
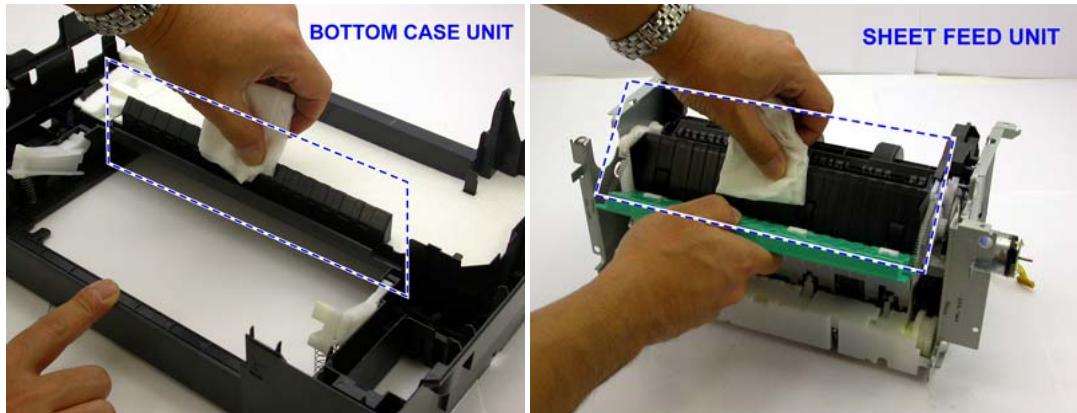
*3: How to prepare and set the ASF sub-roller cleaning sheet:

    1) Fold a sheet of plain paper lengthwise in half.

    2) Fold the paper at approx. 60 mm from the end, and fold the folded end in half backward, as shown below.
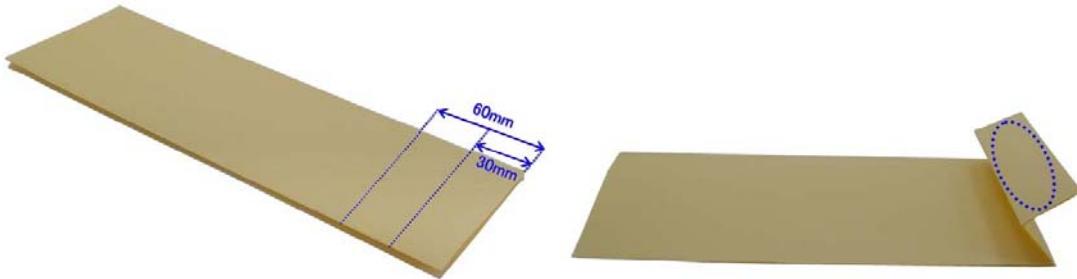
    3) Moisten the folded end portion (indicated by the blue circle in the figure above) using a wipe, and set the paper in the ASF so that the moistened edge of the paper contacts the 2 sub-rollers. Then, fold the other end of the paper along the ASF cover edge to hook the paper to the ASF cover, as shown below.

    4) With the machine turned on in the user mode, set the paper source to the ASF and press the Menu button. Select Maintenance / Settings, Maintenance, then Roller cleaning.

    5) The paper wipes off ink from the sub-rollers.

* Occurrence level:

    A: The symptom is likely to occur frequently. (Caution required)

    B: The symptom may occur under certain conditions, but likeliness is assumed very low in practical usage.

    C: The symptom is unlikely to be recognized by the user, and no practical issues are assumed.

Part 3

APPENDIX

3. PIXMA MP800 SPECIFICATIONS

\<Machine\>

Type	Desktop serial color inkjet printer
Paper feeding method	Auto sheet feed (ASF, cassette, automatic duplex printing, CD / DVD printing[*1])
Resolution	9,600 x 2,400dpi (Max.)

Throughput (target value)	- 4 x 6, borderless printing: Approx. 36 sec. (standard mode, PP-101, Full Page SCID No. 2)
	For reference:
	
	                                Fast Standard
	  Black (Fine Black) 30ppm 15.0ppm
	  Color (Fine Color) 24ppm 11.7ppm

Printing direction	Bi-directional, uni-directional
Print width	Max. 203.2mm (216mm in borderless printing)
Interface	USB 2.0 Hi-Speed
ASF stacking capacity	Plain paper: Max. 13mm (Approx. 150 sheets of 64g/m^2 paper)
Cassette stacking capacity	Plain paper: Max. 13mm (Approx. 150 sheets of 64g/m^2 paper) (Photo Stickers and Credit Card size not supported)
Paper weight	64 to 105g/m^2
Detection functions	Scanning unit open, Presence of print head / ink tanks, Opening / Closing of paper output tray, Remaining ink amount (optical / dot count), Opening / Closing of inner cover, Printing position, Paper presence, Paper end sensor, Waste ink amount, Internal temperature, Pick-up roller, Paper feed roller position, Carriage position, Head-to-paper distance, Supported camera direct printing device, Presence of CD / DVD[*1], Scanner home position
Acoustic noise (Highest print quality)	- Highest print quality settings: Approx. 34.7dB (print from a computer) / 41.3dB (copy) - Quiet mode: Approx. 33.4dB

Environmental requirements	During operation Temperature 5C to 35C (41F to 95F)
	                        Humidity 10%RH to 90%RH (no condensation)
	Non operation Temperature 0C to 40C (32F to 104F)
	                        Humidity 5%RH to 95%RH (no condensation)

Power supply	Power supply voltage, frequency Power consumption Standby Power-off AC 100 to 120V, 50/60Hz Approx. 20W Approx. 2.0W Approx. 0.8W AC 220 to 240V, 50/60Hz Approx. 20W Approx. 2.0W Approx. 0.8W
External dimensions	Machine: With the paper support and output tray retracted: Approx. 470 (W) x 490 (D) x 240 (H)mm
Weight	Approx. 12.0kg, not including print head and optional units

Related standards (Machine, Adapter)	Electromagnetic radiance:
	  VCCI, FCC, IC, CE Mark, Taiwan EMC, C-Tick, CCC (EMC), Korea MIC, Gost-R
	Electrical safety:
	  Electrical Appliance and Material Safety Law (DENAN), UL, C-UL, CB Report, CE Mark, GS, Gost-R, FT, SASO, CCC, SPRING, Korea EK, IRAM (Argentine)
	Environmental regulations:
	  RoHS (EU), WEEE (EU), Korea Package Recycle Law, Green Point (Germany), Energy Star, Eco Mark, Law on Promoting Green Purchasing

Serial number location	On the carriage flexible cable holder (visible when the scanning unit is open)
Remaining ink amount detection	Available (automatic detection by optical method and dot count, enabled at default)
Paper type detection	Not available
Print head alignment	Available (automatic or manual alignment via MP driver Maintenance, or via the operation panel button)

   *1: Only for CD / DVD printing supported regions

\<Scanner\>

Type	Flat bed scanner (scanning of a fixed document by a moving scanner head)
Sensor type	CCD (Charge Coupled Device): 2,400 dpi / 600 dpi dual

Optical resolution	2,400 x 4,800 dpi (max.)
Scanning resolution (software interpolation)	19,200 x 19,200 dpi (max.)
Gradation	Grayscale: 48 bit / 8 bit (Film scanning: 48 bit / 16 bit, or 48 bit / 8 bit) Color: 48 bit / 24 bit (RGB each color 16 bit / 8 bit) (Film scanning: 48 bit / 48 bit, or 48 bit / 24 bit)
Document size	A4 / LTR (max.)

\<Copy\>

Copy quality	3 levels (Fast, Standard, High)
Intensity	9 levels (automatic intensity adjustment available)
Enlargement / reduction	Preset ratio: max. (400%), 4x6 -> 8.5x11 (212%), 5x7 -> 8.5x11 (170%), A5 -> A4 (141%), B5 -> A4 (115%), 100%, A4 -> 8.5x11 (95%), A4 -> B5 (86%), A4 -> A5 (70%), min. (25%) Zoom: 25 to 400% (in increments of 1%)
Document size	A4 / LTR (max.)
Number of continuous copies	Monochrome / color: 1 to 99 copies

\<Print head\>

Type	Single head with 5 removable ink tanks (each color)
Print head	Pigment-based BK: 512 nozzles, 600 dpi, 30 pl Dye-based BK / C / M / Y: 512 x 6 nozzles, 1,200 dpi, 1 pl / 5 pl (C / M), 5 pl (BK / Y)
Ink color	Pigment-based black Dye-based black, cyan, magenta, yellow
Ink tank	PGI-5BK (pigment-based), CLI-8BK / C / M / Y (dye-based)
Weight (Net)	Print head, approx. 60g
Supply method	As a service part (not including ink tanks)
Part number	QY6-0061-000

\<Supported ink tanks\>

Model name and destination		Pigment-based ink		Dye-based ink							
		BCI-9BK	PGI-5BK	BCI-7eBK	BCI-7eC	BCI-7eM	BCI-7eY	CLI-8BK	CLI-8C	CLI-8M	CLI-8Y
PIXUS MP800	Japan	O	X	O	O	O	O	X	X	X	X
PIXMA MP800	Other than Japan	X	O	X	X	X	X	O	O	O	O

O: Usable

X: Not usable

Note: The ink tanks for the Japanese models are not compatible with those for the non-Japanese models. Be sure to use the appropriate ink tanks in servicing.

\<Direct printing\>

Memory card drive	Supported memory card	Compact Flash TYPE I/II (3.3V), Microdrive, SmartMedia Card (3.3V only), Memory Stick, Memory Stick PRO, SD Card, MultiMedia Card, xD-Picture Card, miniSD memory card, Memory Stick Duo*, Memory Stick PRO Duo*
	Operation	Via the machine buttons.

Storage function	Condition	Before changing the settings, the memory card must be removed.
	Function	Read / Write
Card Direct Printing	Operation panel	3.5 color LCD, 20 buttons, 7 LEDs
	File format	JPEG (DCF, CIFF, Exif 2.21 or prior, JFIF), DPOF compliant
	Print quality	Standard, High
	Image correction function	Photo Optimizer PRO, VIVID, noise reduction, face brightener, image optimizer
	Image adjustment function	Brightness, contrast, hue (skin tones)
	Image processing function	None
	Image retrieval function	Available (date)
	DPOF	Ver. 1.00 compliant Index printing, printing of an image the specified number of copies, printing of the specified image(s), printing with the shooting date

	Print layout	Single-photo/multi-photo/all-photo printing:
		    1 photo per page (borderless/with borders, only with borders for plain paper)
		
		DPOF printing:
		    1 photo per page (borderless/with borders)
		    6, 15, 24, 35, 80 photos per page
		    30 photos per page (panorama)
		
		Index printing:
		    6, 15, 24, 35, 80 photos per page
		    30 photos per page (panorama)
		
		Layout printing:
		    2, 4, 8 photos per page (borderless/with borders)
		    Postcard (borderless/with borders, with/without lines)
		    Album (4 photos per page, right/left)
		    Mix 3 types (for A4/LTR)
		
		Sticker printing:
		    2, 4, 9, 16 stickers
		    1, 5, 6, 7 stickers (for free-cut)

	Information print	Date, file number, Exif information

	Throughput	Approx. 55.9 seconds, with the following conditions and settings:
		    - Photo Paper Plus
		    - 4 x 6 borderless
		    - A photo from a 5 mega-pixel digital camera
		    - Exif print
		    - Standard print quality
		    - Process from pressing the printing start button to ejecting paper

Camera Direct Printing	Supported digital camera	Digital cameras and digital video cameras supporting Bubble Jet Direct or PictBridge
	Print layout	- 1 photo per page (borderless/with borders) - 2, 4, 9, 16 photos per page
	Information print	Date, file number

	Throughput	Approx. 54 seconds, with the following conditions and settings:
		    - Photo Paper Plus
		    - 4 x 6 borderless
		    - A photo from a 5 mega-pixel digital camera
		    - No image correction
		    - Exif print
		    - Standard print quality
		    - Process from pressing the printing start button to ejecting paper

Print Beam printing	Supported mobile phone	Mobile phone equipped with IrDA 1.2 port, or with Bluetooth 1.2 port
	Printable data	Image (JPEG only, text printing not possible)
	Supported layout	1, 2, 4, 8 images per page (borderless) 1, 2, 4, 5, 6, 7, 8, 9, 16 images per page (bordered)
Printing via Bluetooth communication (optional BU-20)	Standard	Bluetooth version 1.2
	Output	Bluetooth Power Class 2
	Communication range	Good for approx. 10 m in radius (depending on interference between the communication devices, or radio wave conditions)
	Frequency band	2.4GHz
	Communication speed	Approx. 720kbps
	Supported profile	BIP, OPP, SPP, HCRP
	Supported OS for HCRP	- Windows XP Service Pack 2 or later - Windows XP Service Pack 1 or later: Microsoft "Support for Bluetooth Wireless Devices" or Toshiba Bluetooth Stack for Windows Ver. 3.00.10 or later has to be installed - Mac OS X 10.3.3 or later
	BU-20 external dimensions	18.5 (W) x 47.5 (D) x 8.7 (H) mm with a cap
	BU-20 weight	Approx. 7g
	BU-20 power supply voltage	4.4 to 5.25V
	BU-20 power consumption	500mW (max.)
	BU-20 operating temperature	5C to 35C (41F to 95F)
	BU-20 operating humidity	10%RHto 90%RH (no condensation)

* Adapter required.

⬅ <Part 3: 3. PIXMA MP800 SPECIFICATIONS>